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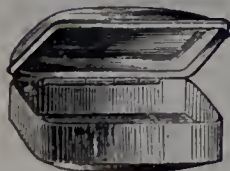
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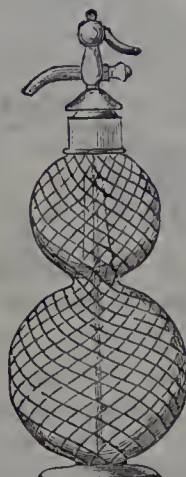
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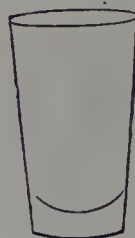
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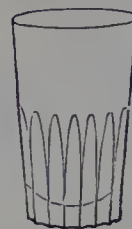
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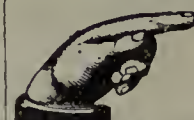
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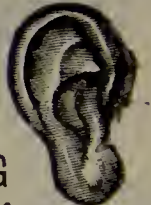


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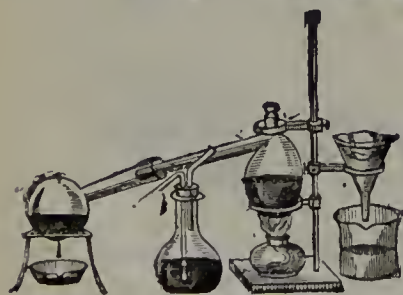
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Remittances payable to EDWARD HALSE.

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Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C." and the figure must be distinctly endorsed upon the envelope. Letters will thus be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 8d.

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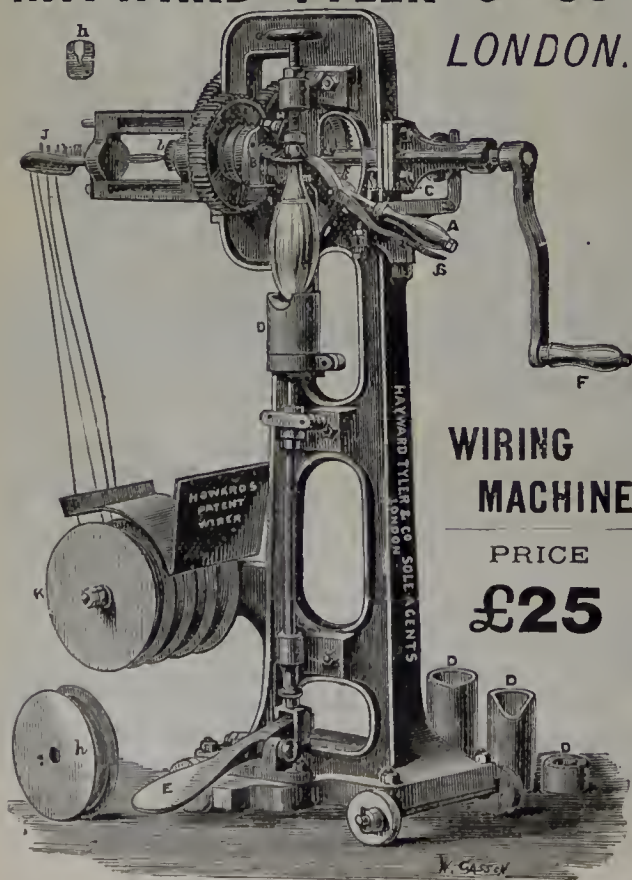
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NON-INTOXICATING BEER

Made from MASON'S Original

EXTRACT of HERBS

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ENLARGEMENT OF SIZE.

A Sixpenny Bottle makes EIGHT GALLONS of

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BEWARE of others copying our title.

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MASON'S is a Special Compound entirely from Herbs.

NO OTHER EXTRACT MAKES BEER LIKE IT.

Sold in Bottles at 6d., 1s., & 2s. each, with directions.

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Make Temperance Wines in a few minutes.

Ginger, Orange, Lemon, Raspberry, Black Currant, &c.

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NEWBALL & MASON,
Manufacturing Chemists and Botanic Druggists, NOTTINGHAM

SEASON 1891.

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CREAM MILK, unsweetened, sterilized.
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THE PUREST IN ENGLAND.

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Messrs. KENNAWAY & CO. sale of this brand of Beef Wine through—named after the invalid Emperor of be procured. Messrs. Kennaway & Co. margin of profit than can be got on and in addition pay half their licences the same, which they arrange through licences they have never yet failed. necessary for Chemists to hold wine of medicated wines. New licences can immediately



are appointing Chemists as agents for the out the country. This preparation, Germany, is the purest and best that can secure to their agents a much larger other preparations of this description, annually, including cost of obtaining their own solicitors. To obtain these Under Excise regulations, it is now licences if they sell anything in the shape only be got once a year—the time is approaching.

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WILLIAM ELBORNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University)
December 15, 1888.

Introduced 1853.]

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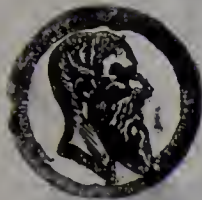
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CHLORODEN

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Smith, T., and H., and Co.
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Kimmermann, A. and M.

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Hassall and Co. (Phospho)

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Jocan, Gabriel
Mariani and Co.

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Howards and Sons

COCA & CHOCOLATE

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Christley and Co.
Fry and Sons
Kewtree and Co.

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Burroughs, Wellsome and Co.
Evans, Sons and Co.
Greiff, R. W., and Co.
Hill, A. S., and Son
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Lofoden Cod Liver Oil Co.
Lefthouse and Saltmar
Smith, T. J.
Southall Bros. and Barclay
Woolley, Sons and Co.

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Burroughs, Wellsome and Co.
Ferner Bros.
Hooper, B. & Co.
Leo & Co.
Lloyd, T. H., and Co.
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Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Lloyd, T. H., and Co.

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Southwell, U., & Co.
Warwick Brothers.

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Haynes, G., & Co. (Absorbent)
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Sanger, J., and Sons
Seabury and Johnson

CRACK LIME

Mumford, B. G.

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Evans, Sons and Co.
Fenniman and Co.
Jewsbury and Brown
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Lowe, C.
Quelch, H. C.
Robertshaw, A. H., and Co.
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Stevens, P. A.
Sutton, O., and Co.
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Thompson and Capper
Warwick Bros.
Woods, W. (Arosa Mint)

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Barclay and Sons (Limited)
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Evans, Sons and Co. (Savary)
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Hill, A. S., and Son
Hookin, Wilson and Co.
Idris and Co.
Jackson, W. and H.
Kay Bros. (Lim.)
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Marriot, E., and Co.
Maw, Son, & Thompson, S.
May, Roberts and Co.
Newbery, F., and Son
Quelch, H. C.
Rankin, W. and Son
Sanger and Son
Schulze and Co.
Thompson, Walters, Hole and Co., Lim.
Tidman and Son
Toogood, W.
Wood, Vincent

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Jordan and Co.

DRUMS

Berger, F.

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Calvert, F. C., and Co.
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Grindley and Co. (Lim.)
Hassall and Co. (Lim.)
Jeyes' Fluid
National Chemical Co.
Sanitas Co.
Sashbury and Johnson
Staples Bros. & Co.

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Martin, Maria (Nun)

ELASTIC HOSIERY

Wood, V.

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Gent and Co.
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Orme and Co.

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Sanger and Son

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ESSENCES

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Berger, F.
Brady and Hinehliffe (Ld.)
Burkoyne, Burbridge and Co.
Bush, Son, and Co.
Bush, W. J., and Co.
Cummock, J.
De Carle and Son
Goodall, Backhouse and Co.
Hay, W.
Idris and Co.
May and Baker (Limited)
Miller, A., and Co.
Newball and Mason
Oldfield, Pattinson and Co.
Stevens and Howell
Tyrer, P. (Anchovies)
Tyrer, T., and Co.
Woolley, Sons and Co.

ESSENTIAL OILS

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Boehm, F.
Bush, W. J., and Co.
Bush, W., Son and Co.
Olney, Dod and Co.
Cooking & Co. (Japan Pepper)
Cummock, J. (Mint)
Drysdale, J. W., and Co.
Evans, Sons and Co.
Hodgkinson, Treacher and Co.
Lambert, S., and Co. (Sandal Wood)
May and Baker (Limited)
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Mourad, J.
Schlesinger, L.
Stevens and Howell
Symes and Co.
Treat, E. O.
Vogt, G., and Co.
Warwick Brothers
Wright, Layman and Umney

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Dunnean, Flockhart and Co.
Howards and Son
May and Baker (Limited)
Robbins, J., and Co.
Tyrer, T., and Co.
White, A., and Son
Woolley, Sons and Co.
Wright, Layman and Umney

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Allen and Hanbury
Barber, G., and Co.
Burkoyne, Burbridge and Co.
Dakin Brothers
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Franks
Hooper, B., and Co.
Lloyd, T., Howard and Co.
Mason, G., and Co. (Lim.)
Potter and Clarke
Wright, Layman and Umney

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Australian Meat Co.
Bovril (Limited)
Brand and Co.
Densmore's Peptone and Extract of Meat Co. (Lim.)
Lobley Co.
Liquor Carnie Co. (Lim.)
Mason, G., and Co. (Lim.)

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Hookin, Wilson and Co.
Jackson, W. and H.
Allinor Bros. Lynch & Co.
Marriot, E., and Co.
May, Roberts and Co.
Thompson, Walters, Hole and Co. (Limited)
Toogood, W.

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Fordham, W. B., & Sons, Lim.
Silicated Carbon Filter Co.

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Tunnbridge and Wright
Wilson, B.

FORMULA

Brooks, T.

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Brand and Co.
Goodall, Backhouse and Co.
Hearon, Squire and Franks
Lobley Co.
Liquor Carnie Co. (Lim.)
Mottershead & Co. (Benger's)
Nestle, H.
Ridge, Dr.
Savory and Moore

SINGER ALL

Hay, W. (Essence)

Miller, R. M., and Co.

GLUE

Fordham, W. B., and Sons

GLYCERINE

Boehm, F.
Fink and Co.
Ferner Bros.
Greiff, R. W., and Co.
Lofoden Cod Liver Oil Co.
Price's Candle Co.

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Unrile and Co.
Evans, Sons and Co.
Hearon, Squire and Franks
Hill, A. S., and Son
Kerfoot, T.
Wright, Layman and Umney

GUM

Fink and Co. (Araucaria, &c.)
Greiff, R. W., and Co.
Hyde, Nash and Co.
Levermore Ang., and Co.

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Chesebrough Mfg. Co.
Edwards and Co.
Truefitt, H. P. (Limited)

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Newball and Mason
Oldfield, Pattinson and Co.
Potter and Clarke

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Newball and Mason
Potter and Clarke

HOMOEOPATHIC

Keene and Ashwell
Leath and Ross
Thompson and Capper
Watson and Watts

HOSPITALS

London Homoeopathic

HYPOPHOSPHITES

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Fellows
Fletcher, Fletcher and Co.
Symes and Co.
Tyke and King
Tyrer, Thomas, and Co.

INHALERS

Sprone Co., The
Toogood, W.

INK [See MARKING INKS.]

Bowley and Draper

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Penny and Co.
Samsara and Co.
Steiner and Co.
Thompson, Walters, Hole and Co. (Lim.)

INSURANCE

London and Lancashire Fire Insurance Co.

KETCHUP

Tyrer, P.

KOLA

Christy, T., & Co.
Thompson, M. F.
Van Hargan, J.

LARD

Ewen, J., and Son

LIME JUICE

Evans, Sons and Co.
Idris and Co.
Riddle, A., and Co.

LINSEED POULTON

Seabury and Johnson

LINT

Liverpool Lint Co.
Newson, G.
Robinson and Sons
Seabury and Johnson

LOZENGES

Allen and Hanbury
Blyton, Astley and Co.
Gibson, R., and Son (Maufrs.)
Hill and Son
Kerfoot, T.
Pascall, J.
Raines and Co.
Randall and Son
Stern, G. and G.
Warwick Bros.

MACHINERY

Beyer Freres.
Burroughs, Wellsome and Co.
Foster, F.
Holroyd, J., and Co. (Lim.)
Melin, G.
Olshon, A.
Werner and Pfleiderer

MAGNESIA

Bush, W., Son and Co.
Dunnean and Co.
Evans, Sons and Co.
Greiff, R. W., and Co.
Hearon, Squire and Franks
Hill and Son
Kerfoot, T. (Citrate)
Washington Chemical Co.

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Bells, R., and Co.
Burroughs, Wellsome and Co. (Koplers)
Hearon, Squire and Franks
Reade Bros. and Co. (Blancette)
Wyleys and Co.

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Carmichael, M. W.
Dr. Paul's

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Barber, G., and Co. (Crimeon)
Hickinson, J.
Marx, M. and E.

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Day, Son and Hewitt (Veterinary)
Day and Son (Veterinary)

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A1 Menthol Depot, A. W.
Shirley, Proprietor
Cooking and Co.
Evans Sons and Co.
Hookin, Wilson and Co.
Seabury and Johnson
Thompson, Walters, Hole and Co. (Lim.)
Tyrer, P.

MERCURIALS

Ferner Brothers
Howards and Son
May and Baker (Limited)
Tyrer, Thomas, and Co.

METHYLATED**SPIRITS**

Boord and Son
Burroughs, J.
Harvey, J. and W. and Co.
Jones and Co.
Phillips, G., and Co.
Smith, S., and Co.

METHYLENE

Robbins, J., and Co.

MICROSCOPES

Darton, F., and Co.
Perken, Son and Rayment

MILK

Nestle, H. (Condensed)

MIXING**MACHINERY**

Gardner, W.
Werner and Pfleiderer

MORPHIA

Macfarlan, J. F., and Co.
Smith, T. and H.

OILS, PAINTS, &c.

Hugh Highgate and Co.
Fox, W., and Sons

ointment bases

Burroughs, Wellsome and Co.
Chesebrough (Vaseline)
Grindley and Co. (Petroleum Jelly)
Richardson, W. H.
Reade Bros. and Co.

OPTICIANS

Botwright and Grey
Darton, F., and Co.
Lancaster and Sons
Perken, Son and Rayment
Raphael and Co.

OTTO OF ROSE

Fuerst Bros.
Moryoseph, A.
Treat, E. O.

PAIN FINKER

Kuhn, B.

PATENT MEDICINE

Armbrrecht, Nelson and Co.
Atkinson and Barber (Infant)
Ferner
Barclay and Sons (Limited)
Beecham, T. (Pills)
Crouse, F. B.
Edwards and Son
Evans, Leeseher and Webb
Fennell's (Powders)
Globe Chemical Co.
Goodall, Backhouse and Co.
Guy's Tonic
Holloway (Pills and Oint.)
Hughes and Hughes
Laur (Phosphorus, &c.)
Lampough, H. (Lim.)
Lobley (Clarke's mix.)
May, Roberts and Co.
Newbery and Sons
Radam's Microbe Killer Co. (Lim.)
Richardson, W. H.
Roberts and Co. (Foreign)
Seignah (Limited)
Sutton, W., and Co.
Thompson, Walters, Hole and Co. (Lim.)
Vogeler, The Charles A., Co.
Widcox and Co.
Wilson, A. (Bunter's Nervine)

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Thompson, W. P., & Co.

PEPPERMINT OIL

Cooking and Co.
Miller, J. & G.

PEPSINE, &c.

Burroughs, Wellsome and Co.
Chessaing and Co.
Fletcher, Fletcher & Stevenson
Greiff, R. W., and Co.
Newark Soap Co.
Parkes, G. J. R. (Inglavin)
Stern, G. and G.
Warner and Co. (Inglavin)

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Bionneau and Cie.
Boehm, K.
Brooks, T.
Burroughs, Wellsome and Co.
Chesebrough Manufacturing Co.
Chessaing and Co.
Coward, G. K., and Co.
Dunnean, Geo. (Lowen Soap)
Evans, Sons and Co.
Farina, J. M.
Giraud Fils
Greenall, T. B., and Son
Johnson and Co.
Legrand, L.
Mann, A., and Co.
Mourad, J.
Newbery and Sons (Hardoes)
Ottinger, E.
Pears Soap
Price's Patent Candle Co.
Reamarine Manufg. Co.
Salisbury, S. (Lav. Water)
Schlesinger, L.
Shirley, A. W.
Thompson, Walters, Hole & Co.
Tidman and Son (Lim.)
Treat, E. O.
Truefitt, H. P. (Limited)
Warwick Brothers
West, T. (Oken's Moss)
Woolley, Sons and Co. (Powder)

PEROX. OF HYD.

Robbins and Co.

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Hamilton and Co. (Lim.)
Snowdon, Sons and Co. (Jelly)

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Baron, Harvey and Co.
Berger, F.
Boehm, K.
Burroughs, Burbridge and Co.
Burroughs, Wellsome & Co.
Chessaing and Co.
Dunnean, Flockhart and Co.
Elton and Co.
Fellows
Ferreis and Co.
Fletcher, Fletcher and Co.
Giles Schacht and Co.
Greiff, R. W., and Co.
Green, C., and Co.
Hearon, Squire and Franks
Hewitt, and Son
Hill, A. S., and Son
Hooper, B., and Co.
Howards and Son
Jeyes Sanitary Compounds Co.
Jordan and Co.
Leith & Co. (Cone, Tinctures)
Kolman, Granger
Lambert Pharmaceutical Co.
Lambert, W.
May and Baker (Limited)
Moryoseph, A.
Potter and Clarke
Rankin and Bolland
Kieles and Co.
Roberts and Co.
Robinson Bros. and Barclay
Sutton, W., and Co.
Symes and Co.
Tyrer, T., and Co.
White, Alfred, and Son
Widows, Francis and Butler
Woolley, Son and Co.
Wyleys and Co.

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Marion and Co.
Orme, J., and Co.
Perken, Son and Rayment
Tyrer, T., and Co.
White, Alfred, and Son

PILLS (Various, &c.)

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Anderson Apothecaries Hall
Becham, Thomas
Blair's Gout Pills
Oster's Little Liver Pills
Shampigny, A., and Co.
Bede's Gout Pills
Evans, Sons and Co.
Hearon, Squire, and Francis
Hill, A. S., and Son
Holloway
Jackson, W. and H.
Lloyd, T., Howard and Co.
McKesson and Robbins
Newbery and Sons
Robinson's
Wand, S.
Warner, W. and Co. (Coated)
Wyleys and Co.

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Findar, J. W.
Toogood, W. (Goslar)
Werner and Pfeiderer

PLASTERS

Evans, Sons and Co.
Johnson and Johnson
Mather, W.
Quilliam, J., and Co.
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Seabury and Johnson
Thompson, M. F.
Young, H.

PODOPHYLLIN, &c.

Keith, B., and Co.
Smith, T. and H., and Co.

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Beckett, S.
Bradley & Bonrdas (Albatur)
Easy and Co.
Fordham, W. B., and Sons
(Limited)
Oskey, John, and Sons

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Ford, Shapland and Co.
Silverlock, H.
Townsend, J.

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Stern, G. and G.

QUININE SALTS

Greeff, R. W., and Co.
Howards and Sons
Kuhn, B.
Zimmermann and Co.

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Duncan, Flockhart and Co.
Greeff, R. W., and Co.
Oldfield, Pattinson and Co.

SACCHARIN

Allen and Hanbury
Burroughs, Wellcome and Co.

SALICIN

Macfarlan and Co.
Smith, T. and H., and Co.

SALICYLIC ACID

Burgoyne, Burbidges and Co.
Fuerst Bros.
Zimmerman, A. and M.

SALOL

Kuhn, B.

SALT

Stern, G. and G. (Pepsalia)
Tidman and Son

SAUCES, PICKLES

Goodall, Backhouse and Co.
Mason, G., and Co. (Lim.)
Tyrer, P.

SCHOOLS, &c.

City School of Chemistry and
Pharmacy (Lim.)
Liverpool School of Pharmacy
London Homoeopathic and
Medical Sch.
Manchester College
Northern School of Pharmacy
South London School of
Pharmacy (Lim.)
The School of Pharmacy
Westminster College

SEEDS

Arintage Bros.

SELTZO GENES

Brathby and Hinchliffe (Ld.)
British Syphon Co.
Evans, sons and Co.
Geralt, E., and Co.
Lynch and Co.
May, Roberts and Co.
Thessler, E.

SHEEP DIP

Cooper and Nephews
Fletcher Bros. and Co.
Jeyes' Sanitary Compounds Co.
Quibell Bros. Wilkins
Staples Bros. & Co.

SHOP FITTERS

Bowling and Govier
Bygrave, J., and W.
Evans, Sons and Co.
Howlett, S.
Natal, E.
Natal and Co.
Poins, H., and Co.
Treble, G., and Co.
Yates, W. S.

SOAP

Ayrton and Saunders
Barclay and Sons (Lim.)
Bayley and Co.
Blondeau and Co. (Vinolia)
Bronnley, H., and Co.
Chiswick Soap Co.
Cook, E., and Co.
Ewen, J., and Sons
Fordham, W. B., & Sons (Ld.)
Jeyes' Sanitary Compounds Co.
Lucas and Co.
Pears' Soap
Stern, G. and G.

SPECTACLES

Botwright and Grey
Darton, F., and Co.
Perken, Son and Rayment
Raphael and Co.

SPIRIT

Boord and Son
Burrough, J. (Pure & Mthyl.)
Harvey, J. and W., and Co.
Jones and Co. (Methyl.)
Macnair, A., and Co.
Phillips and Co.
Smith, Stephen and Co.

SPONGE

Evans, Sons and Co.
Peterson, M., and Co.

STAMPS (RUBBER)

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Hicklison, J.
Pollard, A. W.

STARCH

Beckett, S.
Crichtley (Gloss)

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Austin and Co. (Sprinklers)
Barnett and Foster
Mellin, C.
Sanders, H. G., and Son
Stipendium Stopper Co.

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Clark, S., and Co. (Lim.)

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Fletcher, Fletcher and
Stevenson
Gibson, R., and Sons
Sankey Sugar Co.

SULFONAL

Burroughs, Wellcome and Co.
Greeff, R. W., and Co.
May and Baker (Limited)

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Bailey, W. H., and Son
Barclay and Sons (Limited)
Cocking, J. T.
Eschmann Bros. and Walsh
Haywood, J. H.
Liverpool Patent Lint Co.
Maw, Son, & Thompson, S.
Robinson and Sons
Sanitary Wood Wool Co. (Lim.)
Schutze, F., and Co.
Thompson, Walters, Hole and
Co. (Limited)
Tidman and Son
Wood, Vincent

SYPHONS

Barnett and Foster
Brathby and Hinchliffe (Ld.)
British Syphon Co.
Geralt, E., & Co.
Idris and Co.
Kilner Bros.
Thessler, E.

SYRINGES

Bock, O.
De Luca, G. V.
Schoenfeld, J. & J. Frères

SYRUPS

Fletcher, Fletcher (Liquors)
Idris and Co.

TABLETS

Cotton, J. R. (advertising)

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Bonson's Digestive
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length of time, and is
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Combines in one clear Fluid every valuable
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H. A. ROBERTSHAW & CO.,
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BEAURINE DENTIFRICE is in liquid form, and is a substitute for both powder and mouth-wash. It is spoken highly of by both the Medical and Dental professions. BEAURINE is put up in attractive bottles, enclosed in handsome boxes.

TERMS—2s. size, 16s. per dozen; 3s. 6d. size, 28s. per dozen, strictly cash—i.e., cash must accompany order.

A special cash discount of 5 per cent. will be allowed off all orders over £1, and of 10 per cent. off all orders over £10. Cheques must be made payable to H. A. ROBERTSHAW & CO., and crossed Lancashire and Yorkshire Bank, Halifax.

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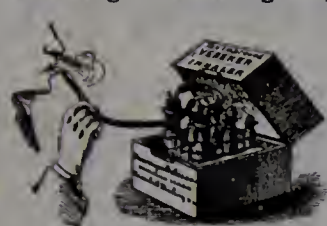
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JUNE 13TH.

[1891.]

Improved Chloride of Ammonium Inhaler (Vereker's).

We have made several important improvements in this favourite inhaler, not the least important of which is the new valve, which prevents the possibility of blowing the water into the acid or ammonia bottles. The new style case is also a great advantage in protecting from breakage.



"The vapour of Chloride of Ammonium removes unhealthy and offensive secretions, and restores the long-diseased or weakened nasal and respiratory mucous membrane to a healthy state, so that in cases of catarrh, where thickening, induration, and irritation exist, a most decided

improvement is brought about in a short time." In "throat-cough," pharyngeal irritation, and relaxation and weakness of the throat, it acts as a most effective alterative and tonic to the mucous membrane.

The Vereker Chloride of Ammonium Inhaler affords perfectly neutral fumes, and is always ready for use.

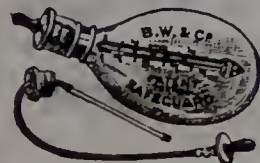
Dr. SMYLY, Ex-Pres., Royal College of Surgeons, Ireland, says:—"It is the best Inhaler for Chloride of Ammonium I have met with."

Supplied to the Trade at 5s. each; retail, 7s.

Thermo-Safeguard Feeding Bottle. (B., W. & Co.'s Patent.)

As a practical and scientific invention for protecting the lives of infants, nothing, except Fairchild's discovery of the pure Zymine Peptonising agents, has of late years approached in importance the Thermo-Safeguard Feeding Bottle.

The *British Medical Journal* says:—"The Thermo-Safeguard Feeding Bottle enables the nurse to ascertain at all times the temperature of the food given to the child. The bottle is made of flint glass of most approved shape, and has no angles in which the milk can coagulate. It has the further advantage (since the bottle is marked in ounces) of giving a register of the exact



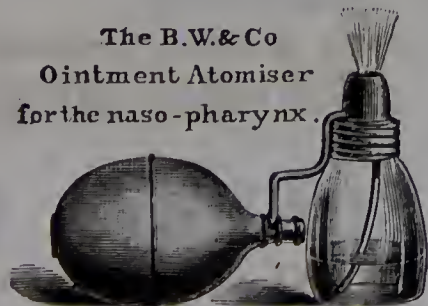
amount of food taken at each feeding, and thus tends to avert the evil of over-feeding. The bottle has a great deal to recommend it, and is likely to come largely into use."

"The best of all feeding bottles, and ought to be universally used."—*Edinburgh Medical Journal*.

It is admirably adapted for use in predigesting with the Zymine Peptonising Powders (Fairchild).

Supplied to the trade in three qualities, at 10s. 6d., 14s., and 22s. per dozen. Retail prices 1s. 3d., 1s. 9d., and 2s. 6d., each.

The B.W. & Co Ointment Atomiser for the naso-pharynx.



This elegant little instrument is intended for use in applying a fine spray of an oily solution or of plain "Paroleine" (B., W. & Co.)—a basic paraffin oil free from odour, colour, or taste—to the naso-pharyngeal mucous membrane.

The *Journal of Laryngology and Rhinology* says:—"This instrument has delighted us. We have so often asked for a spray that would throw a fine vapour of an ointment or oily basis; and those which are offered are anything but satisfactory. The spray before us meets all our wants. No laryngologist's table will be complete without one of these beautiful sprays."—December, 1890.

A spray with a special conducting tube is supplied for use in post-nasal catarrh, &c.

Supplied at 5s. 6d. each. Fitted for use in post-nasal cases, &c., 8s. 6d. each.

Wafer Medicine Cachets (B., W. & Co.)

(E. GORLIN'S PATENT.)

An ingenious yet simple and ready method of taking disagreeable medicines in the form of liquid, powder, or



B., W. & Co. WAFER MEDICINE
CACHET AND FOLDER.

"Tabloids." To charge a Cachet, which is composed of pure rice starch, it is spread out in the folder, as shown in the accompanying illustration, and the contents placed in the cap. The lid of the Cachet is then wetted and brought over by means of the lid of the folder. When pressed on the top of the cap it is completely sealed, and prevents an egress of the contents into the mouth. Just

prior to taking the Cachet, it should be dipped in water and then placed on the tongue, and may be easily swallowed with a little water.

The *British Medical Journal* says they are "well adapted for the administration of unpalatable powders or liquids."

The *London Medical Recorder* reports:—"They will be welcome to medical men and their patients, and also to pharmacists, whose labours they will lighten."

The Cachets are supplied to the trade in boxes of 100, with folder and measure complete, at 14s. per dozen, subject to usual discount.

Tincture of Strophanthus.

This is the first commercial Tincture of Strophanthus, and is found by physicians to be the only perfectly uniform and reliable preparation, because prepared from the first and finest shipment of the true seed sent to London.

The "TABLOIDS" contain each two minims of the Tincture, and are the safest and most convenient form of the drug to use.

USES.—"Strophanthus," writes Dr. Fraser, "may be used with advantage in all weak states of this organ, whatever the cause of weakness;" but in case of degeneration or insufficient compensatory change, will probably do little good. Not only will it often dissipate the uræmic symptoms in Bright's disease, but in contracted kidney with dropsy it has quickly induced sleep and caused free diuresis. In Bright's disease, with its concomitant symptoms, it is in most cases invaluable, and some have obtained good results in the anasarca of hepatic cirrhosis and chronic peritonitis. While in purely bronchial and nervous asthma it is not so beneficial, its beneficent effects in the dyspnoea of cardiac and renal diseases have been most marked. It is not a stimulant, but a cardiac tonic.

DOSE.—The Tincture (1 in 20) may be taken in doses of from 2 to 10 drops, the former being a small dose.

Strophanthus Tincture supplied in $\frac{1}{2}$ -oz. and 1-oz. bottles, at 4s. and 6s. per dozen; 1-lb. bottles at 6s. each.

Strophanthus "Tabloids" supplied in bottles of 50 and 100, at 8s. 6d. and 16s. per dozen.



STROPHANTHUS
SEED.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, London, E.C.



ESTABLISHED 1859.

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PUBLISHER'S NOTICE.

WHOLESALE HOUSES are requested to bear in mind that the Summer Issue of THE CHEMIST AND DRUGGIST will be published on July 25. On that occasion, and not again this year, we shall be prepared to stitch circulars with the journal. This favourite and effective method of distributing a circular to the trade must be arranged in advance, and firms thinking of taking advantage of the opportunity can get full particulars by communicating with us.

SUMMARY.

THE Pharmacy Acts Amendment Bill is marked "dropped" in the official Parliamentary record.

THE condition of the alkali industry, as depicted by the chief inspector in his annual report, is good. We give an article based on the report.

In a prosecution at Glasgow on Thursday, for the sale of seidlitz powders which contained no Rochelle salt, the defendant, a grocer, pleaded guilty, and was fined. The sheriff indicated that the British Pharmacopœia was the standard which should be followed.

CHEMISTS' shops so rarely, in spite of evil days, come under the auctioneer's hammer that we have thought it advisable to give an account of a sale which took place in Edgware Road this week.

THE President of the Pharmaceutical Society of Ireland has given an explanation of the absence at the late Jubilee celebration of any address from his Society, which conspicuous absence was noted in this journal.

THE competition for seats on the Scotch Executive of the Pharmaceutical Society is keener than that for the London Council. There are twenty-nine candidates for the seventeen vacancies. The election comes off next week.

THE PHARMACEUTICAL SOCIETY has obtained judgment at the Hanley County Court against four unqualified assistants of two drug stores in the town. Judgment for penalties, amounting to 40l. in all, was recorded.

THE Halifax West Riding magistrates have dismissed a summons taken by the Inland Revenue authorities against a chemical manufacturer for using a still without a licence. The defence was that the still was only used in the manufacture of sulphate of ammonium.

THE Lord Lieutenant of Ireland has sanctioned the widening of the druggists' examinations under the Pharmaceutical Society of Dublin so as to embrace, in addition to principals, those assistants who were in business before the passing of the 1875 Amendment Act.

AN interesting historical and statistical record of the British Pharmacopœia was submitted to the General Medical Council at its recent sitting. This we print. It will also be noted that Sir Richard Quain has been thanked for his services in connection with the Pharmacopœia.

IMPORTANT.

JAHNCKE'S PATENT BOXES.—In THE CHEMIST AND DRUGGIST of April 18 last we replied to a correspondent in reference to a patent for Jahncke's metallic boxes and in that answer we fell into an error which, in justice, to Mr. Jahncke, as well as chemists and druggists generally we desire to correct. We stated that "Jahncke's patent for making small tin boxes is void." That was an incorrect statement. Mr. Jahncke's patents (which have been well known in the trade for so many years past) are in full force, both as regards the patent round box, in which the drawn-up lid and body are made of the same diameter, the inside round strip serving for the lid to pass over and to fit flush against the body; and also as regards the patent oblong box with the rounded corners. The mistake occurred through our making an incorrect reference at the Patent Office. The patent to which we referred in our reply to "Alpha" on April 18 last was also one of Mr. Jahncke's (he has been a prolific inventor), but was dropped by him. It related to a certain kind of money-box and was of no interest to the chemist and druggist trade. In our issue of May 9 the mistake we had made was referred to on page 670, but as the insertion of the statement is calculated to cause Mr. Jahncke serious damage unless a full explanation and retractation be made, we have much pleasure in inserting this explanation, and beg to express to Mr. Jahncke our regret for the inadvertence which led to the insertion of the statement in question. We trust that our readers have not been in any way misled thereby, and that it has not been injurious to the interests of Mr. Jahncke, whose patent metallic boxes have been of such great benefit to the trade.

English News.

TRADE-MARKS.—There were 10,258 applications for the registration of trade-marks in 1890, a smaller number than in any year since 1885. During the year 5,701 marks were advertised, and 6,014 registered.

A CONCERT, in aid of the German Hospital and the German Society of Benevolence, will be given in the Munich Theatre at the German Exhibition on Saturday, the 27th inst., at four o'clock. The net receipts of the Exhibition on that day will be handed over to the two charities named.

CHEMICAL SOCIETY.—At the meeting on Thursday, June 18, there will be a ballot, and the following papers will be read:—"The Action of Sulphuric Acid on Dehydracetic Acid," by N. Collie; "The Refractive Power of Certain Organic Compounds at Different Temperatures," by Dr. W. H. Perkin, F.R.S.

CENTENARY OF THE BIRTH OF MICHAEL FARADAY.—H.R.H. the Prince of Wales has fixed 4 o'clock on Wednesday, June 17, for the delivery by Lord Rayleigh of the first of the two lectures at the Royal Institution in connection with this centenary; and Friday evening, June 26, at 9 o'clock, has been appointed for the second of these lectures, which will be given by Professor Dewar.

AN OVERDOSE OF CHLORAL.—An inquest was held on Monday on the body of Mr. William Farrant, late Chairman of Justices in the North of the Isle of Man, and senior member of the House of Keys, who died suddenly at his residence at Jurby, near Ramsey, that morning. The evidence showed that the deceased gentleman injured his arm about a week ago, and had since suffered from insomnia, for which he had been taking opiates. On Sunday he took a dose of chloral, and it proved fatal. The jury found that death was due to an overdose of chloral, taken to alleviate pain and produce sleep.

A FIRE occurred on Saturday night, June 6, at the St. James' Street shop of Messrs. D. W. Bardill & Co., chemists, Derby. It appears that one of the assistants was in the act of reaching some article when, not being high enough, he placed his foot upon a lower shelf. The latter, unable to bear his weight, gave way, and a number of bottles fell to the ground and were broken. One of these contained a quantity of spirits, which ignited at a gas stove close by, and the whole place was instantly in a blaze. The fire authorities were promptly informed of the mishap, and the flames were extinguished before they obtained a firm hold of the premises. The damage done is said to be covered by insurance.

FULLER'S EARTH UNION.—The annual general meeting of this company was held at Cannon Street Hotel on Thursday. Mr. A. G. D. Moyer presided, and moved the adoption of the report and accounts. The directors, in their report, congratulated the shareholders on the fact that the accounts showed a profit enabling the directors to declare a dividend of 7 per cent. per annum, and to carry forward the sum of about 600*l.* to reserve. The sale for the past year had been satisfactory, and during the months of April and May, 1891, the business done showed an increase over the corresponding period of last year. The directors had every hope, said the Chairman, that the ensuing year would be better than the past one. Mr. William Blewitt seconded the motion for the adoption of the report, and it was carried. Mr. S. E. Butler was re-elected a director, and, upon the nomination of Mr. Hanning, Mr. W. B. Hallett was elected as an additional director.

DEATH BY POISONING IN BIRMINGHAM.—Shortly before eleven o'clock on Saturday night Jane Penn (69), wife of a pearl button maker, living at the back of 115 Stewart Street, Spring Hill, was admitted to the General Hospital suffering from the effects of poisoning. The woman has been in a desponding condition of mind, and on Saturday she took a quantity of acid used by her husband in his trade. Yesterday afternoon she died from the effects of the poisoning. She

left behind her in writing an intimation that she intended taking her life, but ascribed no reason for the act. It is known, however, that of late she has been living in very poor circumstances, and it is supposed that her mind became unhinged as a consequence.

KILLED BY A HORSE BALL.—A young married woman named Charles, 25, residing at Somerby, Grantham, committed suicide in a novel manner on June 3. She had been suffering from influenza, which brought her to a very low state. On the Tuesday night she asked for the carving knife to cut her throat. On Wednesday, when left to herself, she obtained from the cupboard a horse ball and took it. Dr. H. Bennett Bailey, who had been attending her for the influenza, was sent for, but on his arrival the poor woman was quite dead. With considerable difficulty the ball was taken from the woman's stomach, and was found to be one of the ordinary balls used as a medicine for horses, and composed principally of aloes. The ball measured 3 inches in length, 1 inch in width, and weighed 1½ oz.

SUICIDE OF A CHEMIST'S ASSISTANT.—On June 2 an inquest was held at Market Bosworth respecting the death of Charles Marcus Walker, aged 21, an assistant to Mr. Thomas Drackley, chemist and druggist. Tom Curtis, another of Mr. Drackley's assistants, said deceased was a native of Odstone, near Atherstone. He had been an assistant to Mr. Drackley for two years, and was quiet, steady, and very reserved. During the last two or three weeks deceased seemed rather vacant at times, and complained latterly about his head. On the previous Saturday deceased appeared in his usual health, and ate a hearty dinner. In the course of the afternoon, however, he appears to have taken arsenic, which he obtained from a cask in the warehouse. Evidence was given which showed that he was somewhat jealous in reference to a young lady to whom he was engaged. After hearing the circumstances, the jury found that deceased had committed suicide while of unsound mind.

CRICKET.—BARCLAY & SONS v. "KEPLER" C. C. (BROUGHES, WELLCOME & CO.).—This match was played on the ground of the first-named club at Raynes Park on Saturday afternoon last. Malt extract proved to be stronger than B. & S. on this occasion. The scores were as follows:—

"KEPLER" C. C.			BARCLAY & SONS.		
Ling, b Boyd	..	.. 18	Kuott, b Smith	..	.. 8
Smith, b Knott	..	.. 1	Boyd, run out	..	.. 14
Kent, b Seruby	..	.. 15	Coward, b Smith	..	.. 8
Wood, not out	..	.. 24	Harrison, c & b Kent	..	.. 7
Thompson, b Fairweather	..	.. 6	Spiers, b Kent	..	.. 1
Astill, b Fairweather	..	.. 0	Edwards, C. Astill, b Kent	..	.. 0
Veitch, run out	..	.. 4	Greenfield, run out	..	.. 0
Clayson, c Greenfield, b Spiers	..	.. 3	Fairweather, c Astill, b Smith	..	.. 5
Stevens, b Spiers	..	.. 0	Button, b Smith	..	.. 0
Draper, b Spiers	..	..	Seruby, not out	..	.. 0
Johnson, E., st Coward, b fair- weather	..	.. 3	Voyee, run out	..	.. 0
Byes 2, leg-byes 3	..	.. 5	Byes 6, leg-byes 3	..	.. 9
Total	..	79	Total	..	52

The married members of the Midland Counties Chemists' C. C. are to compete with the single members on Wednesday next, June 17, on the Langley Cricket Ground, Small Heath, Birmingham.

A CHEMISTS' TRAVELLER FOUND DROWNED.—On Saturday, June 6, an inquest was held at Radcliffe-on-Trent, touching the death of Robert Scott Taylor, whose body was found in the river Trent on the previous evening. The deceased was a traveller, in the employ of Messrs. Clarke, Bleasdale & Co., wholesale druggists, York, and visited Nottingham on business about May 19 or 20. He was last seen alive by the landlady of the hotel at which he stayed on May 23, and no evidence was obtainable to show his whereabouts between that date and the finding of his body last week. Mr. G. H. Bleasdale, wholesale druggist, of the firm of Clarke, Bleasdale & Co., said that the deceased had been in his employ as a traveller for about twenty-five years. Witness last saw him alive in York eight or ten weeks ago. He visited Nottingham at regular intervals, and would be

due there on May 19. The deceased was a temperate man, and, as far as witness knew, his accounts were straight. Witness received a telegram from the deceased on business matters on May 23, in which he stated that he had been very ill for three days. It was further stated that the deceased had been suffering from pain in the head, due to influenza. The jury returned an open verdict.

IRISH NEWS.

SIR CHARLES CAMERON, public analyst and city chemist, Dublin, has been elected president of the Irish Medical Association.

A CANCER-CURE.—At Castlebar last week a further investigation was held into the charge brought against a local "cancer-curer" of accelerating the death of a Mrs. McDermott by the application for cancer of a plaster which he stated was an infallible cure for the disease. The viscera, &c., were forwarded for analysis to Sir Charles Cameron, Dublin, but as that gentleman had not yet submitted the result of his examination, the hearing of the case was still further adjourned.

EXAMINATIONS FOR LICENCE TO ACT AS A REGISTERED DRUGGIST.—At the Dublin examination the following were successful:—Miss Fanny Pierse, Wexford; Messrs. Alexander Andrews, Banbridge; Richard Barry, Middleton; James Clancy, Dublin; Patrick Dromgoole, Dublin; Richard Ellis, Limerick; Thomas Lorell Harte, Dublin; William C. Spencer, Dublin. One candidate was rejected. At an examination held on May 9 at Queen's College, Belfast, the following passed:—Messrs. John H. Dudgeon, Thomas John Field, S. Edgar Kee, James Mahon, William Miskelly, Thomas Spratt, and Samuel Suffern, Belfast; David S. Thomson, Dundalk; Thomas G. Wilkinson, Belfast. Six were rejected.

THE CHARMS OF THE UNION.—After reflecting on the revelations as to the medical injuries which Mr. Barnardo showed last week were supplied to the South Dublin Union, a correspondent of the Dublin *Evening Telegraph* writes asking for terms of admission to the "lotus-land," of which a glimpse has been given. "Here am I," he says, "working day in and day out from January to January, buying a pound now and then of Barrington's whitey-brown soap, and an odd pennyworth of Epsom salts, or a couple of antibilious pills, and rubbing any chafed spot of skin with hogs' lard, when I might be enjoying pleasure unvexed with visits from the tax-collector, and warding off dyspepsia with Eno's fruit-salt and Tamar Indian lozenges, and preserving the beauty of my skin with Blondeau et Cie's vinolia preparations, their *otto de rose* perfume perfumed soap, and the delicately-scented vinolia cream at 3s. 6d. per oz. A friend who wishes to accompany me asks if bouquet cigars are provided, if they have any '74 Pomery, and on what days do they take carriage drives."

SCOTCH NEWS.

ARBROATH.

MEDICINES FOR THE POOR-HOUSE.—At the monthly meeting of the Committee of Management of the Arbroath and St. Vigean's Poor-house, held last week, a letter was read from Mr. Naysmith, chemist, offering to supply all ordinary medicines to the poor-house at 4d. per prescription, with a net profit of 10 per cent. on all expensive medicines, as at present arranged by St. Vigean's Parochial Board. The chairman remarked that this was the outcome of the conference held by the sub-committees appointed by the different boards. It was for the meeting to say whether they approved of what the committees had done. The arrangement was considered satisfactory.

DUNDEE.

THE DUNDEE LABORATORY under "the pillars" will be opened in a week or two. Mr. John Forsyth has the work of fitting nearly complete.

Mr. W. MILLER, the grocer who first took up the sale of patent medicines in Dundee, now advertises that he has "prescriptions prepared by a qualified chemist." Mr. Miller

has no dispensing department or qualified chemist in his store, and it is conjectured that some friendly chemist assists him.

THE HALF HOLIDAY is still much less than half-hearted. Only five chemists have as yet closed on Wednesdays from three to seven, and that only in one locality. There is some prospect of a few of the shops in the centre of the town following the lead of those in the East-end.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

—The first of the excursions, which have been arranged to be held on Wednesday afternoons during the summer, came off on June 3, the place visited being the chemical works at Carnoustie, belonging to Messrs. Charles Tennant & Co. (Limited), St. Rollox. The party, numbering about twenty, were shown over the extensive vitriol plant, and shown the manufacture of the various chemical manures, which is also carried on here on a large scale. The visit proved most interesting and instructive; and, as the weather was delightful, the party returned to Dundee highly pleased with the success of the first excursion.

EDINBURGH.

A LEITH REMOVAL.—Mr. J. T. Coats, pharmaceutical chemist, has now removed from 59 Tolbooth Wynd to new and commodious premises which he has erected at Nos. 64 and 65 in the same street. Mr. Coats has made a very handsome pharmacy; and from the artistic tile floor, in the centre of which is the Leith arms, to the cornice everything is in good taste.

THE BRANCH EXECUTIVE.—The voting-papers for the election of the new executive have been issued. The following is a list of the candidates. If the number be any indication of the interest taken in the Society in Scotland, we should say that that interest, or the competition to get into Edinburgh a few times a year for nothing, is considerable. From the twenty-nine candidates seventeen are required to constitute the executive with the two Scottish members of council and the President and Vice-President of the Society:—

Bethune, W. J., Inverness
 *Boa, Peter, Edinburgh
 Coats, J. T., Leith
 Coull, George, Edinburgh
 Currie, W. L., Glasgow
 Ewing, J. L., Edinburgh
 *Fisher, J. H., Dunfermline
 Fowler, G. R., Forfar
 Fraser, J. I., Edinburgh
 *Frazer, D., Glasgow
 *Gibson, Adam, Edinburgh
 *Gilmour, W., Edinburgh
 *Hardie, J. M., Dundee
 Jack, J., Arbroath
 Johnston, John, Aberdeen

*Kermath, W. R., St. Andrews
 *Kerr, Charles, Dundee
 *Kininmont, A., Glasgow
 Laird, G. H., Edinburgh
 Lunan, George, Edinburgh
 *Maben, T., Hawick
 *McAdam, R., Glasgow
 McLaren, D., Edinburgh
 *Nesbit, John, Portobello
 *Paterson, James, Aberdeen
 *Stephenson, J. B., Edinburgh
 *Strachan, A., Aberdeen
 Sutherland, J. W., Dumfries
 Thompson, T., Edinburgh

Those marked thus * are members of the retiring executive; Messrs. Lawrence, Oban, and Mackenzie, Edinburgh, do not seek re-election. Messrs. Bethune, Currie, Fowler, Jack, and Sutherland have not previously been candidates. The only one who appeals directly to the voters is Mr. Sutherland, who states in a circular that he offers his services "in the interests of pharmacy in the large and important south-western district of Scotland, which has hitherto had no representative on the executive." A meeting of members and associates in business residing in Scotland is convened for Wednesday, June 17, at 12 noon, to receive the result of the election.

GLASGOW.

THE NEW FEVER HOSPITAL.—The Police Commissioners have sanctioned the purchase of the site on Ruchill Estate for the erection of the new fever hospital to which we referred last week.

INFLUENZA.—Glasgow, in comparison with other large cities, has been remarkably free from influenza this year. Of late, however, a good many cases have been reported to the authorities. Dr. Russell, the medical officer for the city, reports that eleven deaths occurred from influenza during the month of May, being five more than in any of the previous months of the year.

PARISH MEDICINES.—Owing to alterations that are presently being made on the Parliamentary Road Dispensary, the City Parochial Board have made arrangements with Messrs. J. & R. Rodman, 235 Duke Street, for supplying medicines to the poor in the east end of the parish in the meantime. Last month 4,501 prescriptions were made up in the Parliamentary Road Dispensary. The offer of Messrs. W. & R. Hatrick & Co., Glasgow, for the supply of medicines, has been accepted by the City Parochial Board. The contract price is 53*l.* 16*s.* 11*d.* Other three local firms sent in offers, namely, The New Apothecaries Company, The Glasgow Apothecaries Company, and Messrs. Brown, Brothers & Co. The City Parochial Board have appointed Mr. Walter Henderson to the post of assistant apothecary.

THE DUKE'S CURE.—The action which was recently brought by a Mr. Wynd against Mr. Robertson, of Rose-neath, for failing to supply a rheumatic specific, has been decided by Sheriff Gebbie, of Dumbarton. The facts were detailed in *THE CHEMIST AND DRUGGIST* of May 9, and it will be remembered that the pursuer alleged that by the defender not supplying the medicine he was injured in health, and had to return to Glasgow, when, on the advice of two eminent doctors, he proceeded to Bath in order to be restored to his wonted health. The sum sued for (200*l.*) was to recomp him for the expenses that he had been put to owing to defender's refusal to supply him with the specific. The sheriff, after hearing proof, has issued an interlocutor, in which he decerns in favour of the defender, and finds him entitled to expenses.

Foreign and Colonial News.

GIFTS TO BELGIAN UNIVERSITIES.—Mr. Leo Errera, Professor of Botany at the University of Liège, Belgium, has announced his intention to present to the University a Botanical Institute. A few years ago the same University was presented with a magnificent Electro-Technical Institute by Senator Montefiore. Brussels University possesses a Chemical Institute, provided by the liberality of the famous alkali manufacturer, Solvay.

THE OPIUM MONOPOLY IN THE DUTCH INDIES.—It is reported that, in consequence of the numerous abuses to which it has given rise, the Dutch-Indian Government intends next year to abolish the system of sale by auction of the right to retail opium for smoking purposes. The opium-traffic will thenceforth be conducted by the Government itself, upon the *régie* system prevailing in certain French colonies, and, for tobacco, in France itself.

A FAMILY POISONED.—The *Cape Argus* reports that certain members of the family of Mr. Difford, Secretary to the Cape Colony Railway Department, were poisoned, it is presumed by "Rough on Rats" having been put in their soup. Miss Mabel Difford, a young lady of 17, died from the effects, but the other members of the family have recovered. The female servant and a Kafir boy have been arrested, and a preliminary examination is being conducted by Mr. Cloete, the Resident Magistrate of Wynberg.

JAVA CINCHONA ESTATE DIVIDENDS.—The annual general meeting of shareholders in the Java Cinchona Planting Company, "Melattie," was held in Amsterdam on June 3. A dividend of eleven per cent. was declared for the working of the year 1890, while, in addition, 2,000*l.* was written off for depreciation of buildings, 3,000*l.* carried to the reserve fund, and a balance of profit of 1002-54*l.* carried to new account. The name "Melattie," does not occur among our list of Java estates. There is, however, a Goenoeng Melati estate, which is one of the best in the island, and produces an equivalent in bark of 4,000 to 6,000 kilos. sulphate of quinine per annum. It does not follow by any means, however, that the dividend was not obtained from produce other than cinchona.

CINNAMON ADULTERATION IN AUSTRIA.—The Austrian ministry for home affairs has issued a circular to all police authorities throughout the country calling attention to the

growing practice of adulterating spices, especially cinnamon, and enjoining a strict application of the laws against food adulteration. The circular states that it has been brought to the knowledge of the authorities that large quantities of hazel-nut shells are brought into commerce by way of Trieste for no other purpose than to be ground up with cinnamon.

MEDICINES IMPORTED INTO TURKEY.—With a view of preventing the falsification of patent and other medicines imported into Turkey, it has been decided, says the *Levant Herald*, to include all pharmaceutical products within the measure which has been in operation for some time in regard to quinine. Accordingly, all such products will be examined by a body of agents appointed for the purpose, and a label will be stuck on each bottle, case, or box, as the case may be, indicating the date of the examination. The measure has been sanctioned by Imperial *iradé*, and will be shortly put into force.

PHARMACY IN INDIA.—Messrs. Holmes & Co., chemists, Madras, have opened a branch dispensary on the Batt. Road, St. Thomas's Mount. A correspondent of a Madras paper remarks on this that: "In supplying really safe aerated waters, at localities, alone, they might, if once popularly known, drive a thriving trade; and their supply of such medicaments as may not be procurable at the local civil dispensary will soon make their usefulness to be appreciated. Several dispensaries before the present one shot up, and disappeared mushroom-like. This would seem to show that one interested in the business would best look after its popularity."

THE WIDOWER'S REVENGE.—The Russian journal *Novosti* is responsible for the following story:—A St. Petersburg practitioner had among his patients a lady whom he had treated for a serious ailment for months without any good effects. The patient, in fact, grew worse, and at last the doctor ordered a remedy of a dangerous, powerful character, at the same time informing the lady's husband that he expected this prescription to effect a cure. Instead of this, the illness ended fatally almost immediately after the administration of the remedy; and the husband, rightly or wrongly ascribing his wife's death to the potent medicine, affixed the doctor's prescription to the cross over his wife's grave, with explanatory comments of his own warning passers-by against the practitioner, whose incapacity he alleged to be the cause of her death. The doctor has brought an action for damages, which will shortly be heard.

OPIUM AS CURRENCY.—In parts of the Hankow district of China opium is used as a medium of exchange, and the Consul there explains the curious circumstance in this way. Commerce, except along the water routes, is in a primitive condition. The great weight of the copper coinage renders it unsuitable for exchange. Silver, which is used in the large towns, is used in bulk by weight. It is melted into lumps of varying purity and weight. The most generally used vary from 68 to 70 oz. each. The inconvenience of dividing it is a serious drawback to its being used in the country, as is also the difficulty of testing its purity. The credit of the native bankers is not widely enough established to give an extended currency to their notes. Under these conditions opium is found useful, in addition to pure barter, which still prevails to some extent, in facilitating the exchange of commodities. In this respect it has three advantages—it is almost universally in demand, it is light and portable, and it is easily divided into small quantities.

A CANADIAN PAINT COMBINE.—A proposal for the amalgamation of a number of Canadian paint factories is receiving serious consideration. At present the factories produce much more than is needed for consumption, and the result has been severe cutting in prices, so that no money can possibly be made. The advocates of amalgamation point to the fact that there are now forty travellers on the road, where three could cover the ground. The reduction in the staff of travellers would mean a saving of about \$75,000 annually. There are also at present fifteen managers over the different factories, where only two are wanted. In the last two years, also, three large paint-manufacturing establishments have been added to the trade, and this has further added to the severe competition which the trade has had to experience. Several meetings have been held in Montreal and Toronto, and the scheme generally favoured

is to merge into one large company four manufacturing establishments in Montreal, three in Toronto, and one in Halifax. Some difficulty is experienced with one firm, but it is believed this will be overcome.

AMALGAMATION OF AMERICAN DRUG FIRMS.—The formation of mammoth companies, by the amalgamation of competing firms into one huge concern, has for some time been one of the features of the American drug trade. What the *New York Shipping List* describes as another "important deal" in this direction was made on May 26 at Detroit by the amalgamation of the firms of Williams, Sheley & Brooks and James E. Davis & Co., the latter of whom have just been burnt out. The new concern will be known as Williams, Davis, Brooks & Co., and will be composed of W. C. Williams, James E. Davis, Alanson Sheley, and A. S. Brooks. The capital will be \$300,000, and the firm, as one of the partners frankly stated, expect to do a business of from \$1,500,000 to \$2,000,000 a year. Detroit is now one of the four drug centres of the country, coming into direct competition with New York, Chicago, and St. Louis. The objects of the amalgamation are concentration, the reduction of expenses, and an increased output.

ARTIFICIAL v. NATURAL LEMONADE.—The question whether mixtures of various artificial ingredients—in *casu* an ammoniacal solution of carmine, and an alcoholic solution of fuchsine diluted with fruit-essence—may be lawfully sold under the name of lemonade has occupied the attention, first of the local court at Mülheim, and secondly, of the Correctional Tribunal at Dnlsbrg. The defendants were a number of itinerant hawkers who had dispensed the artificial compounds to thirsty customers upon the occasion of the Mülheim Whitsun fair. The Mülheim judge fined them 50s. each, but, upon appeal, this conviction was quashed, the tribunal deciding that the term "lemonade" might now be held to include preparations containing no natural fruit juices whatever. The witness for the defence who appears to have most strongly impressed the judge with this view was apotheker Mellinshof, of Mülheim, who explained that the fruit-drops, effervescent lemonade, and other articles of consumption now sold very largely contained no material whatever derived from natural fruit, and that apothekers themselves were accustomed to retail a flavoured drink coloured with ammoniated solution of carmine under the name of lemonade—that mixture, according to the witness, being a real boon to the poor classes of consumers.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

ELECTION AT THE ACADEMY OF SCIENCES.—M. Moissan has been elected, by a majority of ten votes, as a member of the Section of Chemistry at the above Academy. The other candidates were Messrs. Grimaux, Ditte, Jungfleisch, and Le Bel.

DEATH OF A HOMŒOPATHIC DOCTOR.—Dr. Frederick Love, an English homœopathic practitioner, died on Wednesday last at his apartment, Rue d'Anmale. He was 75 years of age, and a resident in Paris for the last fifty years. During the cholera in 1849 he established a numerous and wealthy connection amongst the best classes of society. He had a special *clientèle* amongst lyrical artists, and attended Madame Patti during her last visit to Paris. His son, Dr. James Love, is secretary of the French Homœopathic Society.

A NEW ELECTRIC BATTERY.—M. de Lalande, engineer, has recently invented a new battery, formed of a conglomeration of oxide of copper, for telegraphic and telephonic purposes. This gentleman renders the surface of the oxide active by metallisation, and this permits of a great intensity (up to 25 amperes) being obtained. The battery can be made to last several years, as, when not actually in use, it does not exhaust itself.

A BOGUS PATENT.—A man named Kuess, professing to be a chemist, recently sold to Messrs. Bapterosse & Co. a patent for the preparation and application of potters' colours without firing, 40,000f. being the price paid for the so-called

invention. The purchasers were unable, however, to obtain the results shown them by M. Kuess, and on account of which they had been induced to buy his invention. The firm naturally demanded that the chemist should again show them the process of working his patent, but he declined further assistance. In consequence of this an action was brought against Kuess, and the judge suggested that the defendant should comply with the reasonable request made by Messrs. Bapterosse & Co. He again declined, however, to give further assistance, and experiments were carried out by order of the court at the Ecole des Arts and Métiers. These proving unsuccessful, the quasi-inventor was found guilty of swindling. He was condemned to three months' imprisonment, a small fine, and to refund the 40,000f., with interest, as well as to pay 1,000f. for damages and costs.

INFLUENCE OF DRUGS ON THE HEART.—The temporary expansion and contraction of the heart under the influence of certain drugs formed the subject of a paper read by Professor Germain Sée at the last meeting of the Academy of Medicine. The professor, in collaboration with Dr. Pignol, gave the following summary:—(1) Sparteine is the substance which diminishes most promptly and effectually the volume of the heart. This drug strengthens the cardiac muscles and augments their vital force. (2) Digitalin also contracts the heart, but only when its cavities are already in a state of dilation. (3) Iodide of potassium tends to contract, but to a less degree than sparteine. (4) Antipyrin expands the volume, but without influencing arterial pressure. (5) The action of bromide of potassium may be taken as the opposite of iodide of potassium, but as similar to antipyrin. It dilates the whole organ, the right side being slightly more affected than the left. Certain other drugs have no effective action. Caffeine, says Prof. Sée, has no influence on the cardiac muscles, in spite of certain assertions to the contrary.

Gazette.

PARTNERSHIPS DISSOLVED.

Bond & Edwards, Halifax, surgeons.

Hale, T., Hale, M. G., & Vanhouse, J. M., under the style of Hale & Son, Fenchurch Avenue, City, colonial brokers; as far as regards T. Hale.

Watkinson & Lonsdale, Leeds, manufacturers of photographic apparatus.

THE BANKRUPTCY ACTS, 1883 AND 1890.

RECEIVING ORDERS.

Ayton, Edward, Southwick Street, Hyde Park, surgeon dentist.

Broadway, Sigismund Alexander William Edward, Lurline Gardens, Battersea Park, physician and surgeon.

Summers, William, Allendale Town, veterinary surgeon.

Young, Robert John, late of Torrington, now of Stockton-on-Tees, formerly chemist and druggist, now assistant chemist and druggist.

ADJUDICATIONS.

Broadway, Sigismund Alexander William Edward, Lurline Gardens, Battersea Park, physician and surgeon.

Coiller, George Henry Christian, Chingford, mineral-water manufacturer.

England, Edwin Parsons, Leicester, aerated-water manufacturer.

Noad, Henry Carden, West Norwood, surgeon.

Young, Robert John, late of Torrington, now of Stockton-on-Tees, formerly chemist and druggist, now assistant chemist and druggist.

ORDER MADE ON APPLICATION FOR DISCHARGE.

Owen, Richard Foster, Holloway Road, Upper Holloway, late of Southport, physician and surgeon—discharge suspended for three weeks from May 15, 1891.

SOAP FOR CELLULOID AND VULCANITE.—Boil together 20 parts of cocoa-nut oil and 10 parts of soda-lye, 40° B.; then add 15 parts of finely-powdered pumice-stone, and perfume with lavender, or a mixture of oil of lavender 6 parts, oil of thyme 6 parts, and oil of rosemary 4 parts.

Pharmaceutical Society of Ireland.

THE monthly meeting of the Council was held on Wednesday, June 3, at 11 Harcourt Street, Dublin, the President, Mr. William Hayes, in the chair; and there were also present the Vice-President (Mr. W. F. Wells), Dr. Burnes, Professor Tichborne, Messrs. Beggs, Grindley, Simpson, Robinson, Moore, Gibson, Merrin, Rankin, Johnston, and Boyd.

THE MISSING JUBILEE ADDRESS.

The PRESIDENT observed that allusion had been made in some of the trade journals to the circumstance that no congratulatory address had been presented by the Council of the Society to the Pharmaceutical Society of Great Britain upon the recent occasion of the completion of its centenary. The facts were that a week after the last meeting of the Council he received an invitation, as president of the Society, to attend the centenary celebration meeting and dinner at Bloomsbury Square. Not being able to accept the invitation, he declined it with thanks; but as no previous notification of the centenary had been received, there was no opportunity of summoning a special meeting of the Council for the purpose of adopting an address.

MR. WELLS CORRECTS LAST REPORT.

The VICE-PRESIDENT said he felt it necessary to correct an inaccuracy in the report of the proceedings of the last meeting of the Council. He was made to say, speaking of the English examinations, "that there was some talk of having only one examination for pharmacists' assistants and for Preliminary candidates." What he said was, that "there was a great deal of talk about, and a good many were in favour of, doing away with the Minor as a qualifying examination, and of having only one qualification—namely, that of pharmaceutical chemist." Another examination would be substituted for the Minor, which would have to be passed after apprenticeship, but would not qualify to keep open shop. He remarked that that would be an arrangement similar to what the Council were about establishing for assistants here.

RIVAL LANGUAGES.

The Registrar, Mr. Ferrall, read a letter from the Privy Council inquiring why, in the arrangement of the Preliminary examination marks, a smaller number of marks had been allotted to Latin than to English, as it was the opinion of the Committee of the Council that Latin was an equally important subject. Mr. Ferrall stated that by direction of the President a reply had been sent to that letter stating that, in the opinion of the Council of the Society, it was much more important that their candidates should have a thoroughly good English education than that they should have a moderate knowledge only of both Latin and English.

The PRESIDENT: Gentlemen, are you satisfied with the reply?

The VICE-PRESIDENT: I think it ought to be entered on the minutes.

The reply was approved of.

WHAT IS A DRUGGIST?

A letter was read from the Privy Council stating, with reference to two applications for registration as chemists and druggists, that the matter was not one in reference to which the Privy Council could advise the Council of the Society.

The REGISTRAR stated that one of these applications was from Mr. John J. Cowley, of Rathdrum, and the other from Mr. Michael Lavan, of Ballyhaunis.

The PRESIDENT: It was decided at the last meeting to refer these applications to the Privy Council, and now they refuse to have anything to do with the matter.

Dr. BURNES: The Privy Council virtually uphold the decision of this Council.

The REGISTRAR: There are further applications from these gentlemen which can't come before the Council to-day. Mr. Cowley has sent in a fresh declaration.

The PRESIDENT: We have been talking all these things over anxiously, and if we can find any way by which we can admit anyone who is at all entitled to it we shall be pleased

to do so. At the same time, the Committee have to endeavour to do what is right as regards those who are on the registers, as well as those wishing to be admitted.

The REGISTRAR, in reply to a question from a member, said Mr. Cowley had been in business since a long time before 1875, but he was not a druggist, he was only a grocer.

The PRESIDENT: After having admitted some persons, we received letters of remonstrance from others in the same town saying that it was a most unfair thing to admit persons who were only grocers, and we found that we had been imposed upon in one or two cases.

The VICE-PRESIDENT: We have evidence of such a character that if we sent it to the Attorney-General he would be bound to have the parties prosecuted for perjury.

Mr. MOORE: What is the definition of a druggist?

The VICE-PRESIDENT: In a great many cases men have styled themselves grocers and druggists, and we have registered them.

The PRESIDENT: And, in addition, some who did not style themselves druggists have shown us, by their invoices, that they dealt very largely in drugs, and we have endeavoured to admit them; but it does not follow that every man who sells a few pounds of sublimate or arsenic is entitled to style himself a druggist.

Dr. BURNES: It is time that the rights of the chemists and druggists should be defended from not only the pharmaceutical chemists but also from the grocers.

The VICE-PRESIDENT: One of the two applicants wrote stating that he never styled himself a druggist or kept a poisons' shop; and he only produced one invoice to prove that he was in business prior to the Act. He refused to sign our form.

The REGISTRAR: He claimed as a general merchant.

The PRESIDENT: If Mr. Moore were on the committee he would see how difficult it is to do right.

Mr. MOORE asked what evidence was really wanted. The applicant might not be able to produce invoices. Very few people after they settled their quarterly accounts kept invoices at all; they destroyed them. His point was that if the committee had proof from a house like his own or that of McMaster, Hodgson & Co. that a man had been dealing in drugs that ought to be sufficient.

The PRESIDENT: I think we have passed everyone that it was possible for us to pass. We have not thrown out a single one who gave evidence that he dealt in drugs largely and in a general way, even though he was a grocer.

Mr. MOORE said his house was most particular in writing nothing that they could not stand by. Within the last ten days they had had applications to write out invoices of transactions before 1875, and to add some poisons.

The VICE-PRESIDENT: Our friends in Belfast will tell you that one gentleman got labels printed with 187— on them.

The PRESIDENT: This discussion is a little out of order, but I am not sorry that we have had it.

Mr. BOYD suggested that the cases of Mr. Cowley and Mr. Lavan, be reconsidered.

The REGISTRAR: Their applications will be before the committee again.

REGULATIONS FOR EXAMINATIONS.

A letter was read from the Privy Council enclosing copies of three orders approving of (1) new regulations for the Preliminary examination, in which some alterations were made; (2) a regulation enabling candidates who had passed the Preliminary examination of other societies to come in for the Pharmaceutical examination within a year; and (3) a regulation that assistants who had been in business before the passing of the Act of 1875 should be accepted for examination on the same terms as those who went into business subsequently.

Mr. RANKIN said the last-mentioned regulation should have been framed so as to include those who were serving their apprenticeship at the time of the passing of the Act of 1875.

The PRESIDENT said that it was he who drafted the regulation, and it was indicated to him that if it were made to include apprentices it would be opposed. It was not his own intention to have included apprentices.

Mr. SIMPSON: How many apprentices would there be—I suppose 100 at the most?

Mr. RANKIN: It would mean about 50 in the North.

The VICE-PRESIDENT: It would mean a loss of 1*l*. 13*s*. for each man.

Mr. GRINDLEY: You might as well bring in druggists' porters.

Mr. RANKIN: When those young men whom I desired to include went into business there was no Act at all. The case of those who went into business after the passing of the Act of 1875 is different.

The VICE-PRESIDENT: A man who has had twenty years' experience ought to be able to pass the Modified examination. It is simply a matter of letting them in at a lower scale of examination fee.

ACCORDING TO REGULATIONS.

A letter was read from Mr. A. H. Jones asking to be allowed to present himself at the Licence examination at the expiration of one year from last April. He stated that he had served three years' apprenticeship to an apothecary, and that before April, 1892, he would have been a year carrying on business on his own account as a registered chemist and druggist. He passed the Society's Preliminary examination last April.

The PRESIDENT: It cannot be done.

ANOTHER CORRECTION.

Mr. RANKIN said he desired to correct an error in the report of the proceedings of the last meeting of the Council. He was reported as having said that "they had nothing to do with what chemists and druggists might be doing throughout the country." What he said was that "the Council, while dealing with the certificate question which was then before them, had nothing to do with what chemists and druggists might be doing through the country; that they had plenty of power under their Acts to deal with them."

CORK CONTENTED NOW.

A letter was read from Mr. William Deane Bateman, enclosing a petition from applicants in Cork, praying that an examination under section 7 of the Pharmacy Amendment Act might be held in that city, notwithstanding that there were not twelve candidates.

Professor TICHBORNE moved and the VICE-PRESIDENT seconded that the application be complied with.

Mr. GIBSON: How many applicants are there?

The REGISTRAR: Three.

The motion was unanimously agreed to.

THE DRUGGISTS PUT ON THEIR BEHAVIOUR.

Mr. GIBSON moved, pursuant to notice, that regulation 15, in the Calendar for 1891, which provides that the president, vice-president, and hon. treasurer must be elected from members of the Council who are also members of the Pharmaceutical Society be rescinded. He believed that that regulation was unjust and illegal. It was passed on November 29 last, before representatives of the chemists and druggists had seats on the Council, and he thought it would have been more becoming to have kept the matter over, in order to afford them an opportunity of speaking on it. Again, it was illegal because, under sections 13 and 14 of the recent Act, the representatives of the chemists and druggists were members of the Council, and, as such, under the Act of 1875, which was to be read with the other, they were entitled to be elected for the offices in question. What was thus given by the statutes no regulation of the Council could take away. While the Amendment Act was before the House of Lords an attempt was made to make this proviso part of it, but the House of Lords refused to sanction it. The making of the regulation afterwards by the Council was getting the thing in by a back door. They were all members of the Council, and he objected to a ban being put on any of them. It was starting the new Act in the same way as the previous Act was chopped up as regarded the rights and privileges conferred on the chemists and druggists, which were taken from them by regulations.

The VICE-PRESIDENT: No. Name one privilege that was taken away. You have made a charge against the Council. Prove it by giving an instance of anything that we took away from the rights of the old druggists.

Mr. GIBSON: It is not necessary for me to name one instance, because the whole course they adopted—

The VICE-PRESIDENT: That is very wide.

The PRESIDENT: Mr. Gibson, I don't think you should make a charge unless you can prove it.

Mr. GIBSON: I am not accustomed to make charges that I cannot prove. The by-laws that you passed took away—

The VICE-PRESIDENT: Name a single item.

Mr. SIMPSON said Mr. Gibson ought not to make statements that he could not substantiate.

Mr. MERRIN: I think the statement should be withdrawn.

Mr. GIBSON said the intention of the original Act was that there should be two grades. Were they established?

The PRESIDENT said the old Council considered that matter from the very beginning, and found that if they created two grades both would be doing the same work; and the druggists of the period themselves preferred that there should be only the one grade, with power to compound physicians' prescriptions. It was therefore unfair to be reiterating this charge about the non-establishment of the two grades.

Mr. BEGGS, as a member of the old Councils, called on Mr. Gibson to withdraw his statement.

Mr. GIBSON: Well, Mr. President, you and the other members of the Council seem to have rather misunderstood what I intended. (Laughter.)

The VICE-PRESIDENT said that, at the request of the Dublin and Belfast druggists, the Council sent a deputation to the Government, asking them to give power to register the old chemists and druggists who would not have the right of dispensing medicines, but the Government would not do it.

Mr. GIBSON: I beg to withdraw what I said—(applause)—but I think that by rescinding the clause to which my present motion relates the Council will be doing a fair thing.

Mr. BOYD said he seconded Mr. Gibson's motion for two reasons. The first was that any gentleman who was worthy of being elected a member of the Council was, he submitted, worthy of being elected to any of its offices. The second was that this very proviso was one which the House of Lords refused to sanction as part of the Bill after it had been keenly fought before them. Therefore, the Council had no business to have submitted such a regulation to the Privy Council, and he was sure that the latter had given their assent to it under a misapprehension.

Mr. RANKIN supported the motion. The Council were amply safeguarded by the existing state of the representation. The druggists did not aspire to the offices in question, but they objected to the slur which was put upon them by the regulation.

The VICE-PRESIDENT said that while the Amendment Bill was before the House of Lords the pharmaceutical chemists proposed that it should appear on the face of the Act that a chemist and druggist or a druggist should not be president or vice-president of the Society. The Earl of Erne, who was the druggists' representative, said that it would be hardly fair to put it into the Act, as it would be a slur on the druggists; and the Marquis of Waterford, the able representative of the pharmaceutical chemists, asked them was it worth fighting for, saying, at the same time, "You will always have a majority." The Earl of Erne said he thought nobody but a pharmaceutical chemist should ever hold the positions in question. Consequently the matter was not discussed in the House of Lords, and the representatives of the pharmaceutical chemists withdrew their proposal. Afterwards, when the Council came to consider the matter, they found grave difficulties in their way. He was sorry to be obliged to say that there was not union amongst them yet. The pharmaceutical chemists were suspected still. They did not get credit for being honest with the druggists; they were looked on as if they were doing everything they could to keep them from being registered. Would it do to put the gentlemen who were now mixed up with the chemists and druggists as a body, and who were yet fighting against them (the pharmacists) in as President and Vice-President of the Society when by virtue of the offices they would become members of all the committees, including the Law Committee, which had to deal, and was dealing at the present

moment, with cases of illegal dispensing? They would be in the unfortunate position of taking proceedings against some of the men whom they were there to represent. Unfortunately men were breaking the law, and it would be the duty of the Council to make examples of them. Therefore he thought it would be a very unwise thing to alter the regulation in question at present. He believed that if they had pressed it in the House of Lords they would have got it into the Act. But it was now in the Calendar, and stated in such a way that not one person in fifty would notice that druggists were not allowed to take the chair. Therefore he must oppose the motion.

Mr. MOORE said he did not aspire to any of these positions, but he thought it a matter of justice to the druggists that the regulation in question should be rescinded. The unpleasantness to which Mr. Wells had referred would pass away. They were in their infancy, and after a year or two all those difficulties would have vanished.

Dr. BURNES: The certificates have to be signed by the President of the Pharmaceutical Society. I do not see that it would do to have them signed by a chemist and druggist, or by a druggist.

Mr. ROBINSON said he thought Mr. Gibson would have acted more in the interests of the chemists and druggists if he had postponed this motion for a year or so; and probably then not one of them would have any objection to it. A great deal had been said about the state of affairs at present. The Council had shown that they were desirous of assisting and encouraging every druggist to become registered, but they could not shut their eyes to the fact that some of the chosen and selected representatives of the chemists and druggists had stated there publicly that if they did not get what they wanted they would repudiate the authority of the Council and its officers, and issue a certificate for themselves. As a pharmaceutical chemist, he (Mr. Robinson) objected to the offices in question being thrown open at present to members of the Council who were in such a frame of mind. Gentlemen who should be elected to those offices would govern the interests of the pharmaceutical chemists; and he objected to that unless they became members of the higher grade. By-and-by, when everything should be smoothed down and all should see that they had a common interest, these offices could then be thrown open.

Mr. MOORE: On behalf of the druggists of Dublin I repudiate the reference which this gentleman has made.

Mr. ROBINSON: Which reference?

Mr. MOORE: As to our wanting to issue our own certificates.

The VICE-PRESIDENT: You are only doing what Mr. Boyd did on the last day.

The PRESIDENT: I am glad to hear Mr. Moore make that statement. I believe that the gentleman who made the statement which is now repudiated did so in the heat of the moment, and in a cooler moment would not have done so. He (the President) did not think that this by-law was brought in for the purpose of in any way hurting the feelings of the chemists and druggists throughout the country. On the contrary, it was done from a sense of what was right, and he thought the time would come when the Council would be a united body, and would feel it a privilege to ask the Privy Council to amend the by-law; and possibly in future years they would be proud to see a druggist President of the Council. At present he thought it would be unwise to dispense with it.

Mr. BOYD: Perhaps Mr. Gibson, with the consent of the Council, will withdraw his motion.

Mr. GIBSON: All right, Mr. President; I withdraw it with pleasure. (Applause.)

DATE FOR ASSISTANTS' APPLICATIONS.

Mr. S. P. BOYD, M.A., moved the following resolution:—

That the Privy Council, having approved of the resolution passed by this Society on January 15, 1891, admitting those who were assistants prior to August 11, 1875, to become registered as "druggists" under the provisions of section 7 of the Amendment Act, the time for receiving applications from such assistants be extended to August 18, 1891.

In consequence of the delay which had taken place before the approval of the Privy Council was given to the resolution passed by the Council on January 15, it had become

absolutely impossible for the assistants to comply with the provision of section 7 of the Act that they should make their applications to be registered on or before June 1 in the present year. Consequently the extension of time which his motion proposed was absolutely necessary.

The VICE-PRESIDENT seconded the motion, which was passed.

SCHOOL MATTERS.

A report was read from the School Committee.

The PRESIDENT said he had received a letter from Dr. Ninian Falkiner withdrawing the application which he had made for leave to take pupils, and stating that he would adhere to the terms of his appointment so long as he should continue to be an examiner for the Society.

The report was adopted.

CHEMISTS AND DRUGGISTS.

A report was read from the Declarations Committee, from which it appeared that the following gentlemen have been accepted for registration as chemists and druggists who had been in business prior to August 11, 1875:—

Beatty, Alexander, Ballymena	Mahaffey, James, Belturbet
Buckley, Cornelius, Maynooth	Plunkett, George, Market Street, Trim
Lyons, Robert, High Street, Omagh	Price, George R., 59 Moyne Road, Dublin
Johnston, Mary Eliza, Glenavey, co. Antrim	Smithwick, John Francis, High Street, Kilkenny
Keary, Patrick, Woodford, co. Galway	

On the motion of Mr. MOORE, seconded by the VICE-PRESIDENT, Mr. Joseph Smyth, chemist and druggist, of Wicklow, was admitted an associate druggist.

THE PRESIDENT'S ABSENCE.

The PRESIDENT: I have to mention, and the announcement is a painful one to me, that this is the last meeting of the Council that I shall be able to attend, at all events for the next five or six months. I have, unfortunately, to accompany a sick son to Australia, and I shall be obliged to leave with him at the end of this month. At the time I accepted my present post I had not the most remote idea that I would be called on to fulfil that duty, but I have since found that I cannot avoid it. Mr. Wells, as your Vice-President, will, of course, take the chair until October, when you can elect as your President whoever you shall think will serve you best. I had not at first desired to continue in office longer than October, but we have been getting on so pleasantly at the last two meetings that I would not have any objection, if it should be your wish, to continue on a little longer. At the same time I do not aspire to the position if there be anyone else that you wish to place in it.

Mr. GIBSON: We are all very sorry that you have to leave us, and are glad that you place your services at our disposal for the future.

The VICE-PRESIDENT: I am sure I express the feelings of all present when I say that we hear with great sorrow of the cause which obliges Mr. Hayes to leave us. I would ask him to allow us to nominate him again for the office of President in October.

The PRESIDENT: I have indicated that if it should be the wish of the Society I shall feel it my duty not to shirk the duties of office. I hope to be back not later than the first meeting of the Council in January next; possibly I may be back by December 1.

Mr. MOORE said he endorsed all that Mr. Wells had said, and heartily sympathised with Mr. Hayes in his present position. He had known Mr. Hayes for a great number of years, indeed, since he served his apprenticeship with him, and there was no member of the Council whom he would rather see President than Mr. Hayes.

Mr. RANKIN said he would add that as long as Mr. Hayes desired to continue in office they felt that they would be only honouring themselves in putting him into the chair, for he had all along acted in a wise and discreet manner during the crisis which the Society had experienced. He had always taken a fair view of the questions that had arisen between the two parties, and if he desired to continue longer in office, their opinion was that he was deserving of the honour. (Applause.)

The Council then adjourned.

THE PHARMACY ACTS AMENDMENT BILL.

IT is now officially notified that the Pharmacy Acts Amendment Bill has been dropped.

During the Session two petitions have been presented against it, and none in its favour. The first petition against it was from "the botanists and herbalists of Leeds," who prayed for its rejection. That petition bore thirty-five signatures, and was presented by Mr. Jackson. The other, from twenty-eight pharmaceutical chemists and chemists and druggists of Leeds, was presented by Mr. H. Gladstone, and has been printed. It was in the following terms:—

The humble petition of the undersigned,
Sheweth,

That we, the undersigned pharmaceutical chemists and chemists and druggists of Leeds and district respectfully call the attention of your honourable House to a Bill, entitled "An Act to amend the Pharmacy Act 1868" now before you, and respectfully point out:

That in this Bill it is sought to restrict the compounding of physicians' prescriptions to all persons registered under the Act of 1868; or to be registered under this Act, or to unregistered persons acting under the supervision of such registered persons.

That in large towns there is a great number of retail chemists who cannot afford to keep a registered assistant, and in the country towns and villages of Great Britain it is customary and convenient for the chemist and druggist and advantageous for the public for apprentices to be employed; in fact, these are the great training ground for the trade, and such youths after two or three years' experience are quite competent to dispense prescriptions, and are doing so at the present time in hundreds of cases.

That no evil or injury to the public has resulted from such a course.

That if the 7th Clause of the Bill was allowed to become law it would render all junior assistants in the dispensing department unavailable, which would be a serious inconvenience to the public, as during the absence of the principal through illness, no prescription could be compounded without rendering the youth liable to a penalty, though he may have dispensed the same prescription many times previously, and in some instances of temporary absence the importance of being able to get medicine in a severe case of hemorrhage might be the saving of life.

Your Petitioners therefore pray your honourable House to reject the said Bill.

And your Petitioners will ever pray, &c.,
SAMUEL TAYLOR, WILLIAM HARRISON, RICHARD TEBBS, &c.

THE BRITISH PHARMACOPOEIA.

SIR RICHARD QUAIN, President of the General Medical Council, in performing his last act as chairman of the Pharmacopœia committee, had a very satisfactory report to submit, showing that from the beginning 100,000 copies of the British Pharmacopœia have been sold. This is shown in an interesting historical sketch by the registrar, which is as follows:—

On November 24, 1858, very soon after the formation of the Council, the first steps, as directed by section 54 of the Medical Act (1858), were taken towards the preparation of the British Pharmacopœia by the appointment of a committee having that business specially in charge, and consisting of the following members:—Dr. Christison, Sir James Clark, Bart., Dr. Apjohn, Dr. R. C. Williams, Mr. Nussey, Dr. Thomas Watson, Mr. Green, Mr. Syme, Dr. Andrew Wood, and Dr. Leet. Dr. Garrod was invited to act as secretary. This committee was divided into three sub-committees, one consisting of Sir James Clark, Bart., Mr. Nussey, Dr. Thomas Watson, and Mr. Green, meeting in London; another consisting of Dr. Christison, Mr. Syme, and Dr. Andrew Wood, meeting in Edinburgh; and a third, consisting of Dr. Apjohn, Dr. R. C. Williams, and Dr. Leet, meeting in Dublin; and they requested the co-operation of the Royal Colleges of Physicians and the Pharmaceutical Society of

Great Britain, who all appointed delegates to assist the sub-committees. Mr. Squire also was invited to, and did, assist the committee with his advice. On May 20, 1862, the General Council, having resolved itself into a committee of the whole Council, adopted the manuscript, which had been prepared under this committee's supervision, as the Pharmacopœia; and appointed the executive committee to act in conjunction with the Pharmacopœia committee in order to carry out the printing and publication of the work. Two sums of 500*l.* each were voted to the committee by the Council to defray their expenses in the preparation of the Pharmacopœia. Unexpected difficulties, however, arose in carrying out this work, and it was not until November 6, 1863, that they were overcome, whereupon the publication took place, and two editions were printed, the one a volume in demy 8vo., of which 13,000 copies were printed, and the other a volume in double crown 32mo., of which 15,000 copies were printed. Of this edition, owing to objections raised, it was found necessary to destroy the larger part—viz., 14,179 copies—thereby entailing a loss of 1206*l.*, the cost of the preparation of this first edition having been 6,229*l.*, and the total receipts from its sale 5,023*l.*

On April 27, 1864, it was resolved, on the motion of Dr. Quain, that a new edition should be undertaken, and that the following members should form a committee for the purpose:—Dr. Christison (chairman), Dr. Sharpey, Dr. Apjohn, and Dr. Quain (who consented to act as honorary secretary). This committee engaged the services of Mr. Warrington, F.R.S., of the Society of Apothecaries, and Dr. Redwood, of the Pharmaceutical Society, to aid in the preparation of the work. On March 26, 1867, this committee presented to the executive committee the finally-revised proof of the second edition of the Pharmacopœia, which was subsequently approved by the general council. Of this edition 40,000 copies were finally issued. On June 3, 1867, a sum of 500*l.* was voted by the Council as an honorarium to the members of this committee.

In 1885, a third edition of the work was prepared by a committee consisting of Dr. Quain (chairman), Dr. Aquilla Smith, Sir Henry Pitman, Professor Maenamar, Mr. Bradford, Mr. Collins, and Dr. Haldane, and produced under the supervision of Professors Attfield, Bentley and Redwood. Of this edition 20,000 copies were issued in the first instance; and in 1886, 1887, 1888, and 1890, reprints of this edition, each numbering 3,000 copies, were issued, thus making a total of this edition up to the present date of 32,000 copies.

In 1874, there was prepared and published an Addendum to the Pharmacopœia of 1867, of which Addendum 15,000 copies were issued. In 1890 there was published an Addendum to the Pharmacopœia of 1885, edited by Professor Attfield, of which, up to the present time, 10,125 copies have been issued. In the preparation of this Addendum important aid in the selection of the articles suitable for admission to it was rendered by several of the medical authorities, whilst the Council also received special and valuable assistance in the preparation of the work from a committee of the Pharmaceutical Society of Great Britain. Altogether, therefore, there have been issued 100,000 copies of the British Pharmacopœia, and 25,125 copies of the Addenda.

A unanimous and hearty vote of thanks was accorded to Sir Richard Quain for his services regarding the Pharmacopœia, "the result of which had been," said Dr. Maenamar, "in seconding the motion, 'that through his indefatigable exertions a Pharmacopœia had been produced which had not only been a pecuniary success, but had been a credit to the country from which it emanated.'"

Professor Attfield also reported that he has "made a record of all published criticisms and technical suggestions respecting the Additions to the Pharmacopœia, issued last December, that seemed likely to be of service in the production of a future Pharmacopœia. So far these have been very few in number. The Addendum has hitherto been most favourably reviewed by the Press, both in Europe and America, and it appears to have given general satisfaction to medical practitioners and pharmacists." He hoped to have his report for 1890 ready shortly, and the committee was instructed to receive and publish it. Professor Attfield was also requested to prepare the report on the Pharmacopœia for 1891, and the usual honorarium was voted to him.

DISSOLUTION OF AN OLD BUSINESS.

ON Monday afternoon about three dozen people met at 217 Edgware Road as participants in and spectators of the dissolution of the drug business established there in 1823—that of J. Watts & Co. It was a well-known business in its day, and has had many a bright-light of pharmacy associated with it; but latterly the death of the proprietor and keen competition have driven it down to zero. The shop occupies a commanding position at the south corner of Praed Street, and has a good house attached to it. But the rent is too high to warrant pharmacy being practised in it any longer, hence the proprietor's widow has disposed of the lease, and, having failed to meet a buyer of stock and fittings privately, the auctioneer was called in to dispose of them. So what it took sixty-eight years to build up was now knocked down in as many minutes. Before Mr. Gilbert (of Norton, Trist & Gilbert) attacked the thirty lots into which the goods were divided, he made a sympathetic appeal to the company to bid well, the vender being a widow. This brought a "Hear hear" and a smile; but when Mr. Gilbert asked 5*l.* for the mahogany and glazed enclosure of the Edgware Road window, which is 11 feet long, "five shillings" was the response, and it was ultimately sold for 15*s.* The contents brought some lively bidding. In one corner there were about four dozen boxwood-cased stoppered bottles, from 1 to 4 oz., in another a few sponges, a dozen aurilaves, specialities, and the like. The centre had a neat small tier in red baize with mirror backs for bottles (about a dozen 1*s.* mag. cit. on it); five mahogany medicine-chests—four 2*l.* 2*s.* and one 6*l.* 6*s.* ones; a tooth-brush case and a few dozen brushes, as well as specialities, feeding-bottles, and the like. The whole brought only 3*l.* After selling the enclosure of the Praed Street window, the auctioneer had hard work to get the contents of the upper part of it to go. Yet it was all valuable chemical apparatus, chiefly glass, and new. On one shelf were about a gross of beakers and graduated measures, a number of funnels, Kipp's gas apparatus, potash absorption-bulbs, safety funnels, Soxhlet's apparatus, retorts, flasks, a neat little still in tin with Liebig's condenser, and other useful apparatus—20*l.* worth at least, and a druggist had the whole for 35*s.* The sundries in the lower part, consisting of feeding-bottles, invalids' feeding-cups, surgical specialities, &c., brought only 28*s.*, and were worth at least six times as much.

Working round the shop the auctioneer came to a good mahogany wall-case, with shelving at sides and cupboard below. That sold for 3*l.* The case contained a good selection of saleable patents and specialities, a number of 2*s.* 9*d.* and 4*s.* 6*d.* articles amongst them, and the shelves three dozen 20-oz. W. M. shop-rounds with gold labels. A pound of potassium cyanide and some other poisons were amongst the drugs. The lot for 24*s.* Some more fittings were then disposed of, the bidding coming mainly from dealers, amongst whom was a little rivalry; but they never succeeded in exceeding the value of what they bought, and it happened now and then that they got stock along with fittings. For instance, there was the mahogany counter, 19½ feet long, well-fitted with drawers and with a 4-foot dispensing-screen on the top. This, with the odds and ends in the drawers (we all know the surprises that one meets with in an old counter), sold for 7*l.*, after brisk bidding. The man who bought the desk with the handsome upright case in front for 52*s.* had it cheap, the perfumes and patents in it being worth more than that. Next, the drawers and fittings, a range of 24 ft. 9 in., in mahogany, drawers numbering 155, and shelves seven. The contents of the drawers were included, and 8*l.* 10*s.* was the sum they brought. The bottles, jars, carboys, and their contents were offered in three lots; most of the Part II. poisons were amongst them, and the bulk was sold to non-professional men for 8*l.* 17*s.* 6*d.* One item excited much amusement. It was a "7 ft. 6 in. range of painted and grained cupboard, with 3 pairs of panelled folding-doors, and the rare chemicals in ditto." This was the poison cupboard of the establishment, we believe, but what was in it nobody knew, for the key was not to be found. "The assistant assured me, a day or two ago," said Mr. Gilbert, "that there is no rare chemical which is not to be found

there. The collection is quite unique, for whenever a thing was wanted it was got and put in stock." "And never wanted again!" cried someone, amidst the laughter that ensued. The bidding went on, and slowly rose to 3*l.* 15*s.*, at which it stopped. Then we got down to the basement, where there was a 30-inch evaporating-copper, with a draught-hood over it, and a straining-arrangement, which, with a few gas-brackets and other odds and ends, sold for 11*s.*; the contents of the warehouse for 5*l.* 5*s.* (bottles alone worth that); and a large marble mortar, with pestles and other articles in the kitchen, for 17*s.* The whole amount obtained was 71*l.* 3*s.* 6*d.* Of course many of the articles were hopelessly out of date. They were the things that showed that the pharmacy in days gone by had been thoroughly first-class. There was evidence that the owners at one time had intelligently and scientifically practised pharmacy as manufacturers, dispensers, and retailers.

It is unnecessary to enter into the personal associations of the shop, which are honourable, and to a certain degree historic. At one time the business would have fetched a few thousands; now for less than a hundred it is scattered to the winds. One can forget the bargains in a feeling of regret that the end should be so unfortunate.

Trade Notes.

MR. A. MORYOSEPH, drug merchant, has removed from St. Mary Axe, to Leadenhall House, Leadenhall Street.

MESSRS. HALE & SONS, drug brokers, of Fenchurch Avenue, E.C., announce that Mr. Hale, the senior partner of the firm, has retired from it in consequence of advancing years, and that Messrs. Bertram S. Strans and Martin Witham Palmer have been admitted into the partnership.

THE HARDY PATENT PICK COMPANY (LIMITED) (makers of the "Devil" disintegrator) is being reconstructed with a view to largely developing their business, and, to carry out this arrangement, the old company is being wound up voluntarily. The new company will take over all assets and liabilities of the old firm, and will be carried on under the same name. The business will not be interrupted.

MESSRS. W. T. HICKS & CO. (LIMITED), chemists and druggists, Duke Street, Cardiff, have this week opened another shop in Queen Street, a short distance from the Taff Vale and Rhymney railway stations. The premises have been handsomely fitted by Messrs. Bowling & Govier, of London. Messrs. Hicks & Co. have also erected in Paradise Place a commodious wholesale drug warehouse, three storeys in height, exclusive of basement, and ten windows in length.

MESSRS. MAY, ROBERTS & CO. are introducing a new insect-powder—"Razzia Powder"—which merits the attention of the trade. The powder is made from carefully-picked Dalmatian flowers, which are dried and ground, and the powder packed in tins on the spot. The result is that the powder retains the volatile and active principle of the flowers unimpaired. It is highly effective for the purpose for which it is intended, and is put up in rather an elegant and attractive way by the growers and grinders, Messrs. J. Neumann & Co., of Finme. We notice that the value given is decidedly above the average.

EXCELSIOR AUTOMATIC DISINFECTANT.—This is the name which Wagner & Gerstley (Limited), 8 Moor Lane, E.C., give to an article to which they are calling the attention of the trade. The disinfectant is a solid block of crude naphthalene, which is fixed in a suitable case to be suspended in w.c.'s or any other apartment desired. There is a little door or flap in front, which can be opened or closed as desired. Naphthalene is known to possess antiseptic properties, and has been used both internally and externally by French and German physicians, so that it is reasonable to suppose that the vapour which the "Excelsior Automatic Disinfectant" emits may possess bactericidal properties. That, however, is a matter which ordinary householders seldom trouble themselves about. What they want is an agreeable deodorant, and this we know from experience naphthalene undoubtedly is, and in the handy form in which it is supplied by Wagner & Gerstley it is likely to take well. The form of the article also adapts it for hanging in wardrobes for the prevention of moths, naphthalene being superior to camphor in this respect.



Legal Reports.

THE PHARMACY ACT.
THE SELLER OF POISONS.

At the Hanley County Court, on Wednesday, before His Honour Judge Jordan, an action was brought by the Council of the Pharmaceutical Society against several chemists' assistants employed in Hanley, for selling poisons. The defendants were Elias Russell and James Cornes, employed by the Hanley Drug Company (Limited), 10 Tontine Street, and George Frederick Gray Gardiner and Thomas Kent, employed at the Central Hanley Drug Company's shop at 26 Tontine Street. The claim against Russell was for 10% penalties incurred on March 25 and April 7, 1891, in selling poisons, to wit—preparations of opium called laudanum, contrary to the provisions of the Pharmacy Act. Against Cornes there were three penalties, the claim being 15%. The claims against Gardiner and Kent were 20% and 5% respectively.

Mr. Grey, barrister, of the Temple Chambers, London, appeared to prosecute, and Mr. Hunt represented Russell and Cornes. The other two defendants were undefended.

Mr. Grey explained that the claim was brought by the Pharmaceutical Society under the provisions of the Pharmacy Act, 1868, 31 & 32 Vic. cap. 121. In the cases of Elias Russell and Cornes he could prove that poisons were sold by these two assistants on certain dates.

Mr. Hunt: It is admitted that the poisons were sold.

Mr. Grey said there were fixed penalties of 5% in each case the poisons were sold by these assistants, who were unqualified to sell the same.

His Honour: Then I have no discretion as to the penalty.

Mr. Grey observed that the defendants were unqualified to sell poisons, and thus incurred the penalties, which must be 5% in each case. That was the amount fixed by Act of Parliament.

Mr. Hunt said he could not dispute his learned friend's right to a verdict. He only wished to point out that it was rather hard upon these young men, who were in the employment of the Hanley Drug Company (Limited), which had amongst its shareholders five qualified chemists, and which employed a qualified chemist to manage the shop. When these sales were made they were unfortunately without the qualified manager. What he had to ask was that His Honour would make an order for easy payment of the penalties.

His Honour: I cannot feel disposed to do that; the company should pay the penalties.

Mr. Hunt: I am afraid the shareholders would complain at that.

His Honour: These people get cheap servants when they were very well acquainted with the Act of Parliament. It is a very serious thing for the public. Justice Hawkins had stated that the object of the Act was beyond all other considerations to provide for the safety of the public. Had the Drug Company done that?

Mr. Hunt: They tried their best. They have a qualified assistant now, as they had before.

His Honour remarked that the Act of Parliament stated that unqualified chemists must not meddle with poisons. There was nothing else for him to do in this case but to inflict the penalties of 5% on each offence. The total penalties inflicted in these two cases amounted to 25%.

Mr. Grey explained that there were four offences committed by the defendant Gardiner.

His Honour: Why do you go in for so many as that? The object of the society is to put down the practice.

Mr. Grey said he was acting according to instructions. He was bound to say it was not an isolated case. The defendant was an assistant at the Central Drug Company's shop. He was an unqualified assistant, and sold a certain poison, a preparation of opium, called laudanum, on March 23, 1891, also on March 26, and April 1 and 3.

The defendant, Gardiner, was then called, and admitted that he sold the poisons on the days mentioned, and that he was unqualified to do the same.

His Honour: Well, there is no doubt about it. Are you an apprentice.

Defendant said he was an assistant.

His Honour (addressing Mr. Grey): Don't you think you had better strike out two cases?

Mr. Grey: At present I have no instructions. We tried to get Mr. Gardiner to admit it, and had he done so, the analyst's expenses would have been saved.

His Honour thought that considering the defendant's station of life the verdict might be reduced to 20%. The master was evidently much to blame, and it was a pity he could not be compelled to pay the penalties.

Mr. Grey eventually agreed to proceed only against two offences, and the penalty inflicted on Gardiner was 10%.

Mr. Hunt said he should be glad if the same course could be taken in the other cases. Cornes was only an apprentice.

Mr. Grey promised to lay the matter before the Pharmaceutical Society.

His Honour gave judgment for the analyst's fees to be paid.

The case against Thomas Kent was then proceeded with. The defendant said he was an apprentice, and was 16 years of age. He remembered having sold poisons on two or three occasions. He did not remember selling laudanum on March 20. Mr. Gardiner served some one on that date.

Henry Lewis Bain was called, and stated that the defendant sold him the laudanum, produced, on March 20.

His Honour asked defendant what he had to say to that.

Defendant said he could not have served witness because he was not at the counter at the time.

His Honour said it was evident defendant had sold poison, and the penalty of 5% and costs would be inflicted.

HOLLOWAY v. BEST.

In the Chancery Division of the High Court on June 6, Mr. Justice Kekewich granted an injunction applied for by Mr. Israel Davis, on behalf of Mr. Henry Driver-Holloway and Sir George Martin-Holloway, trading as Thomas Holloway, of 78 New Oxford Street, London, the proprietors of Holloway's pills and ointment, to prevent the defendant from using their trade-mark in connection with pills. With the injunction, damages and costs as between solicitor and client were granted on terms which had been agreed. Mr. Sapwell appeared on behalf of the defendant.

SEIDLITZ POWDERS PROSECUTION.

On Thursday Messrs. Bain & Thomson, grocers, 333 Garscube Road, Glasgow, were accused before Sheriff Balfour of having on Wednesday, April 29, sold to Inspectors Armstrong and Inglis, of the Glasgow Sanitary Department, a box containing one dozen seidlitz powders, which the public analyst certified were of inferior quality.

Dr. Clark, the analyst, stated in his certificate that the powders were not of the standard laid down in the British Pharmacopoeia. They were all destitute of tartarated soda, and contained on an average each 170 grains of bicarbonate of soda, together with 21 grains of sulphate of soda and 56 grains of sugar, the sulphate of soda and sugar being ingredients extraneous to seidlitz powders, and that on an average each package was deficient in tartaric acid to the extent of 16 grains. A plea of guilty was tendered. Mr. Bain explained that they had no means of analysing the powders they purchased from Messrs. Bell & Co., chemists, and they thought they were pure.

Mr. Lindsay, the prosecutor, said his Lordship would see that they were not seidlitz powders at all; they were just effervescent drinks.

The Sheriff: What effect would one of them have on a person, just that of an effervescent drink?

Mr. Lindsay: Just so.

The Sheriff: Would they be injurious?

Mr. Lindsay: Oh, no.

The Sheriff: Of course, people buying them would buy them for ordinary purposes, and they would have no effect upon them at all?

Mr. Lindsay: Absolutely none.

The Sheriff (to defendant): I suppose you will have a claim against Bell, for these powders are not of the nature, substance, and quality of seidlitz powders? I suppose you know this Pharmacopœia?

Mr. Bain: No.

The Sheriff: I'll warrant you Bell knows it, or he ought to know it.

Mr. Lindsay: This is just one of the dangers that arise from grocers dealing in drugs.

The Sheriff: Did you just purchase them in the usual way and pay the ordinary price for them?

Mr. Bain: Yes; and we sell them at 1d. each, or a dozen for 7½d.

The Sheriff: Suppose I went into Frazer & Green's for a seidlitz powder, what would I pay for it?

Mr. Bain: They can make them up at any price, but they would likely charge you 2d.

The Sheriff: It is quite clear what you sold were not seidlitz powders.

As this was the first case of the kind, the Sheriff imposed a modified fine of 30s.

WHAT IS A STILL.

BEFORE the Halifax West Riding Magistrates, on June 3 (Mr. W. H. Rawson, chairman), Thomas Illingworth, chemical manufacturer, North Dean, was summoned at the instance of the Inland Revenue authorities for keeping a still without licence. Mr. Alpe, solicitor of the Inland Revenue Department, conducted the case, and Mr. Evans (Godfrey Rhodes and Evans) defended. Mr. Alpe stated that the alleged still was used by the defendant in connection with his trade for the purpose of manufacturing sulphate of ammonia. In essentials it resembled Coffey's still, which admittedly was capable of being used for distilling purposes. William David Armstrong, an officer of the Inland Revenue, deposed to seeing the alleged still in use at the defendant's premises on March 6. John Steele, superintendent-inspector of the Inland Revenue, London, stated that he had been thirty-four years in the service of the Inland Revenue Department, and had seen nearly all the distilling apparatus in the country. He had inspected the chemical-works at Salter-hebble, and the sulphate-of-ammonia plant there was a very similar sort of apparatus to Coffey's still. There was a boiler or retort at one end, which contained substances, the products of which were vapourised by the introduction of steam. The vapour, which then contained ammonia, was passed into sulphuric acid, and formed sulphate of ammonia—a solid substance. A quantity of waste gases and vapour remained, and these were condensed and used for making sulphuric acid. In his (Mr. Steele's) opinion that apparatus was a still. Cross-examined by Mr. Evans, witness declined to say whether a solid was produced by distillation; but he admitted that in nine cases out of every ten the product was a liquid. In the case of Mr. Illingworth's apparatus, part of the product was a solid. The changes which took place in distillation were usually physical—*i.e.*, a change of state, say from solid or liquid to gaseous, or *vice versa*. In distillation it was essential that either condensation should take place, or absorption. George Lewin, analytical chemist, of Somerset House, gave similar evidence. In defence, Mr. Evans contended that the apparatus of Mr. Illingworth did not come either within the words of the Act or within the mischief aimed at by the Act, and that it was not a still. This was a test case, the decision of which would probably affect many gas-works and other premises belonging to local boards and companies in this district. The question was open, uncovered by any authority, and it would be for their worship to say whether a trade such as the defendant's should be harassed by having a licence imposed upon it. They had first to ask what was the definition of a still. He had consulted several dic-

tionaries, and found that a still, in its literal acceptation, was a something which caused a "drooping" or produced liquor. Chemical treatises gave a similar definition, and also showed that distillation was a physical process, in which evaporation took place, followed by condensation. In Mr. Illingworth's apparatus the product was not a liquid, but a solid, and practically no condensation took place. There was no reason for condensation, and if slight condensation did take place, it was because it could not be prevented. Then, again, the changes were almost entirely chemical, and not physical, and therefore he put it to the bench that the apparatus was not a still. The intention of the Act was to prevent the manufacture of liquors which were illicit, and to prevent other stills being used, without the knowledge of the authorities, in which that class of liquors could possibly be made. It was not to be said for one moment that they could possibly turn a single glass of whiskey from Mr. Illingworth's apparatus. They could only produce a solid.

William Ackroyd, analytical chemist, Halifax, gave evidence in support of Mr. Evans' statement, and expressed his opinion that the apparatus was not a still.

Mr. Alpe replied on behalf of the Crown, and the bench retired to consider the case. On their return the Chairman said: "The justices are of opinion that this still is not within the meaning of the Act, and we are therefore bound to dismiss the case."

BANKRUPTCY REPORTS.

Re WILLIAM ERNEST GOODWILL, 109 Newtown Road, Birmingham, Chemist and Druggist.

THE first meeting of the creditors under this failure was fixed for June 5, at the office of the Official Receiver, Birmingham, but only one creditor was present. The statement of affairs disclosed liabilities to unsecured creditors, 93*l.* 9*s.* 11*d.*, and assets: stock-in-trade, 35*l.*; fixtures, &c., 3*l.*; furniture, 1*l.*; book debts, 3*s.* 6*d.*; total, 39*l.* 3*s.* 6*d.*; but as 30*l.* 11*s.* has to be deducted for preference claims, the net assets stand at 8*l.* 12*s.* 6*d.*

The Official Receiver reported that the debtor commenced business as a chemist in December last year with a capital of 20*l.* advanced by his father. The shop he opened had been closed for three years, and he found a considerable difficulty in working up a connection. His wife had been ill, and he had lost 10*l.* by a fire, through not being insured. He became aware of his insolvency in April last. His failure was attributed to "illness of wife and losses through fire and bad trade."

Mr. Seymour Price, who represented the debtor, said he had no offer to make. Mr. Canning (creditor) wanted to know to whom the business at Scarborough belonged? The bankrupt explained that it was his father's. He was an hotel-keeper at Scarborough and the owner of the shop, and having become possessed of the stock of a former tenant, who was a chemist, and not being able to let the shop, reopened it as a chemist's, and he not being a duly qualified chemist engaged the bankrupt, who was qualified, to manage it. He received a salary, and if he could have made it pay it would probably have become the bankrupt's at his father's death.

The Assistant Official Receiver inquired if it was usual for a non-qualified man to open a chemist's shop? The bankrupt said it was quite a common practice. In reply to further questions by Mr. Canning, the bankrupt denied that his father had ever said the Scarborough business was his (bankrupt's). His father would never say this, because all goods were paid for by him.

This being a summary case the Official Receiver remains trustee. The principal creditors are:—

	£	s.	d.
Canning, W. & Co., chemists, Birmingham ..	16	2	11
Cawood, —, Hull	12	8	6
Goodwill, B., Scarborough	23	0	0
Harris, P. & Co., chemists, Birmingham ..	10	8	9
Hockin, Wilson & Co., Tottenham Court Road	8	11	9

Re FRANCIS GEORGE HALL, Newbury, Berks., Chemist and Druggist.

THE Official Receiver for the Newbury district has issued particulars under this failure to the creditors interested therein. The statement of affairs discloses gross liabilities amounting to 2,462*l.* 18*s.* 1*d.*, of which 389*l.* 17*s.* 1*d.* is due to unsecured creditors; to fully-secured creditors, 941*l.* 17*s.* 6*d.*; the value of the securities being returned at 1,180*l.*, thus showing a surplus of 238*l.* 2*s.* 6*d.*, which is carried to contra, and to the partly-secured creditors. To partly-secured creditors 1,128*l.* 13*s.* 6*d.*, the value of the securities being estimated at 767*l.* 2*s.* 6*d.*, thus leaving a balance of 361*l.* 11*s.* to rank against the estate for dividend. To preferential creditors, 2*l.* 10*s.*, which are deducted per contra. The total liabilities expected to rank against the estate for dividend are returned at 751*l.* 8*s.* 1*d.*. The assets are as follows:—Stock-in-trade, fittings, trade-fixtures, &c., estimated to realise 110*l.*; furniture, estimated to produce 100*l.*; book-debts (good), 47*l.* 10*s.* 8*d.*; doubtful and bad debts, 59*l.* 9*s.* 1*d.*, the value of them being returned at 4*l.* 14*s.*; to surplus from securities in the hands of fully-secured creditors, 5*l.*. Total assets, 267*l.* 4*s.* 8*d.*, and which, after deducting the claims of preferential creditors, payable in full, disclosed a deficiency of 486*l.* 13*s.* 5*d.*

The report and observations of the Official Receiver state that the receiving order was made, on May 11, on the petition of debtor himself. The debtor commenced business as a chemist and druggist in his own name at Newbury about thirty-two years ago, with a capital of 300*l.* The books of account kept by the debtor were daily-takings book, day book, and ledger, the latter of which shows his accounts with his customers only. No cash book has been used, and there appears to be no record of the debtor's transactions with his creditors.

The Official Receiver considers that the debtor must have been trading for a considerable period after knowing himself to be insolvent. The debtor has no explanation to give as to his present position, except that it is caused by illness and bad debts. He makes no offer of composition.

Re HENRY JOSEPH CURRIE, 22 & 24 Gosforth Street, Felling-on-Tyne, Manufacturer of Patent Medicines.

THE following are scheduled as creditors in this recent failure:—

	£	s.	d.
Bishop Auckland Herald, Bishop Auckland ..	10	2	0
Bishop Auckland Chronicle, Bishop Auckland ..	10	0	0
Blyth Examiner, Blyth	12	0	8
Brown, —, Newcastle	18	5	6
East Cumberland News, Carlisle	10	0	0
Harpin, W., Gateshead	18	0	0
Hexham Courant, Hexham	10	0	0
Jackson, —, Jarrow-on-Tyne	13	17	6
Kelly, —, Gateshead	10	0	0
McKenna, Michael, Maryport	11	2	6
McShane, —, Felling-on-Tyne	23	0	0
North-Eastern Daily Gazette, Middlesbrough ..	15	9	0
Oliff, —, West Newcastle	10	0	0
Smirk, —, West Newcastle	20	0	0
Stockton Herald, Stockton	10	0	0
Simpson & Wilkinson	30	4	0
Preferential creditor —			
Harper, Wm., Gateshead	17	0	0

Re ARTHUR LEONARD THOMPSON, Blackwellgate, Darlington, Grocer and Agricultural Chemist.

THIS debtor appeared for further examination at the Stockton Bankruptcy Court, on June 3. He had filed a supplemental statement from loose papers he could pick up, as he had no books. It showed that from January 1, 1890, to the date of filing his petition he received goods to the amount of 202*l.* 12*s.* 11*d.*, and that he had paid creditors during the time 100*l.* 7*s.* 4*d.*. All the goods had been disposed of by him except about 5*l.* worth. He could not say what profit he put upon them from memory, because his memory was a very bad one. He had put down an item of 67*l.* for lodgings. He paid his mother 15*s.* a week, and the other 5*s.* he reckoned for washing and other small items. He helped his mother to wind up his late father's estate for about eighteen

months, so that during that time he could not have paid her the 15*s.* a week, though previously he swore that he had done so from the time of his father's death. His father died about eight years ago, and debtor carried on the business himself for about the last six years. In 1889 debtor obtained some goods from Messrs. Southall, Bros., and Barelay. They were ordered in his own name, and they sued him for them. Their representative (Mr. Watson) used to call upon him, and debtor wrote a letter saying that he could not possibly think of paying them the amount under the circumstances, as the debt was not debtor's. The Official Receiver: Was that a lie, sir? Yes, it was a lie. The Registrar: The Arthur Leonard who signed that was yourself? Yes, sir. The Official Receiver: Arthur Leonard is entirely a fictitious name? Yes, sir. The debtor acknowledged also writing another letter to Mr. Watson, in which he threatened to make it "warm" for him and the firm, and ultimately 3*l.* was accepted in payment of the account. Questioned as to the signature of "J. C. Thompson" on a bill given to Messrs. Thomson Bros., Stockton, for an account, debtor at first said he didn't know whose it was; then that he didn't like to swear; then that he would not swear he didn't sign it. It might be his brother's signature. Ultimately debtor admitted the signature was his, and that he got the goods. In consequence of further unsatisfactory replies, the Registrar, addressing the Official Receiver, said: "The man has deceived himself so long that if you were to put him on the high road to truth he could not walk ten yards on it." The examination was then adjourned to a special sitting of the court on June 8.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, within one month of the date of this journal, give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1890, of opposition to such registration." All communications to be addressed to H. Reader Lack, Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings Chancery Lane, London, W.C.

(From the "*Trade Marks Journal*," May 27, 1891.)

"THE PHYLLOXERINE," and sketch of shrub showing parasite; for an insect-destroyer. By The Phylloxerine Company, West Ferry Road, Millwall. 151,935.

"CEILEY'S PILLS"; for pills. By R. Ceiley, Church Plain, Great Yarmouth. 154,837.

Sketch of young lady holding smoke-ball to nostrils; for chemical substances used in medicine and pharmacy. By F. A. Roe, 27 Prince's Street, Hanover Square, W. 155,698.

"A.1." and signature; for mineral and aerated waters. By Hydes, 73 Monmouth Street, Rensholme, near Manchester. 154,926.

"NORTH & RANDALL, AYLESBURY," and picture of clock-tower; for mineral and aerated waters. By North & Randall, 73 New Road, Aylesbury. 155,101.

(From the "*Trade Marks Journal*," June 3, 1891.)

Cylindrical design, with wording and signature; for chemical substances used in manufactures, &c., for veterinary and sanitary purposes, and in medicine and pharmacy. By T. Tyrer & Co., Sterling Chemical Works, Stratford, London. 155,264, 155,265, 155,263.

Two clasped hands; for caustic soda, chlorates, &c., and bleaching-powder. By the United Alkali Company (Limited), G.11 Exchange Buildings, Liverpool. 155,620, 155,621.

"HALL'S BACILLICIDE" and "HALL'S BACTERICIDE," with portrait of applicant; for medicines for animals and human use respectively. By E. S. Hall, 1 Rochester Villas, Bromley, Kent. 154,331, 154,332.

Illustration of kangaroo erect on globe; for a sheep-dip. By A. Smith, Excelsior Chemical Works, Manchester. 155,103.

Circular design, with wording and letters; for sheep-dipping. By Wilson & Kitchin, 30 King Street, Whitehaven. 155,107.

"BEAURINE," on square design, with monogram; for patent medicines. By H. A. Robertshaw & Co., 35 Horton Street, Halifax. 155,455.

"ELEPHANT DISINFECTANT COMPANY," and picture of elephant and castle; for a disinfectant. By A. V. Cunningham, trading as the Elephant Disinfectant Company, 86 Camberwell Road, London. 155,732.

"LYPSYL"; for chemical substances used in medicine and pharmacy, and for perfumery, &c. By Blondeau et Cie., trading as Vinolia Company, Ryland Road, London. 154,666, 154,667.

"CALVERT'S MEDICAL SOAP," and other wording on label; for chemical substances used in medicine and pharmacy, and for perfumery, &c. By F. C. Calvert & Co., Bradford, Manchester. 154,864, 154,866.

"PRIMILINE"; for chemical substances used in medicine and pharmacy. By the London Drug and Dental Company (Limited), 10 New Broad Street, E.C. 154,883.

Outline sketch of a house, with wording; for cough-mixtures or medicines. By J. A. Mason and Frank Booth, trading as London and Counties Drug Company, 41 Saville Street, Hull. 154,898.

"HARROLINE"; for chemical substances used in medicine and pharmacy. By W. Wyles, H. Wyles, and A. Wyles, trading as the Harroline Pill Company, Harrogate. 155,005.

"ZYTHADE" on ZnIn shield; for non-alcoholic, non-medicated aerated beverages. By T. J. Fawcitt, Seaton Carew. 152,414.

(From the "Trade Marks Journal," June 10, 1891.)

"NATIONAL CARBOLIC," and other wording on label; for a disinfecting soap. By W. Gossage & Sons, Widnes. 155,465, 155,466.

"BOUTALL'S HEAD, STOMACH, AND LIVER PILLS," on curiously illustrated label; for pills for human use. By G. S. Boutall, 52 Marchmont Street, Russell Square, W.C. 155,819.

"TESOLIN"; for chemical substances used in medicine and pharmacy. By O. S. Bensted, 10 New Broad Street, E.C. 156,231.

"DEMON"; for metal drenching-bottles for horses, cattle, &c. By Day & Sons, Crewe. 155,866.

"K. M. S.," on triangular design; for bisulphate of potassium (for preserving wine, beer, &c.). By A. Boake, Roberts & Co., Warton and Carpenter's Roads, Stratford. 98,326.

"LEMON SQUASH"; for lemon squash beverage. By Yeatman & Co., Denmark Street, London. 152,815.

"HUMBRIA," on circular design; for manufactured liquorice cakes. By White & Son, Spyvee Street, Hull. 153,863.

"PURE AERATED MILK," and picture of a foaming glassful on circular label; for aerated milk. By J. Crampton, Sawston, Cambridgeshire. 154,345.

"GUARDIAN POPULAR PALE SOAP," and other wording; for perfumed soap. By J. Crosfield & Sons, Warrington. 150,604.

"SMITH'S CAPILLARY TONIC," and other wording on label; for a hair wash. By J. Smith, 9 Duff Street, Greenock. 154,944.

"BEAURINE," monogram and name on label; for tooth-brushes, &c. By H. A. Robertshaw & Co., 35 Horton Street, Halifax. 155,456.

NEW COMPANIES.

B. NEWHAM & CO. (LIMITED), with a capital of 10,000*l.*, in 5*l.* shares. Objects: To acquire the business of a wholesale druggist and manufacturing chemist, now carried on by Mrs. M. A. Newham, at Shude Lane, Sheffield, under the style of B. Newham & Co., and to carry on business as wholesale druggists, manufacturing chemists and perfumers. The first subscribers (taking one share each) are:—Mary A. Newham, Ranmoor, Sheffield, widow; J. A. Brookfield, Ranmoor, Sheffield, chemist; H. W. Smith, Norfolk Row, Sheffield, accountant; A. Giles, King Street, Sheffield, chemist's assistant; Clementina Smith, Spring Vale Road, Sheffield; A. Melliner, Falka Street, Sheffield, leather-worker; B. Bailey, Industry Road, Darnall, contractor. John Arthur Brookfield is appointed first managing director, with a remuneration which is to be determined in general meeting. Registered Office, Shude Lane, Sheffield.

KOND & CO. (LIMITED).—Capital 10,000*l.*, in 1*l.* shares. Objects: To acquire the undertaking of the Euonymised Cocoa Company (Limited), now carried on at 50 Stafford Street, Birmingham, in accordance with an agreement made between the Euonymised Cocoa Company (Limited), of the one part, and Kond & Co. (Limited), of the other part, and to carry on and extend the said business. The first subscribers (taking one share each) are:—W. Bradbury, Aston, manager; P. H. Cotterell, Albion Street, Birmingham, clerk; T. W. Cripps, Erdington, accountant; F. D. Eaton, Aston, secretary; D. Griffith, Handsworth, merchant; W. G. Ward, Belgrave Road, Birmingham, manager; F. Griffith, Selborne Road, Handsworth, merchant. There shall be not less than three nor more than seven directors. The first are to be appointed by the signatories to the articles of association. Qualification, 10*l.* Remuneration to be determined in general meeting.

PHOSPHATE, ALKALI AND CHLORINE COMPANY (LIMITED).—Capital 45,000*l.*, in 10*l.* shares. Objects: To carry on the trade or business of manufacturers of phosphate, alkali and other chemicals in all its branches, and to acquire the business of the Lancashire Alkali and Sulphur Company (Limited). The first subscribers (who take one share each) are:—Jas. Simpson, 8A Rumford Place, Liverpool, merchant; Jonas Hirsch, 11 Dale Street, Liverpool, merchant; S. Davies, 3 School Lane, Liverpool, merchant; J. Morrow, 8A Rumford Place, Liverpool, merchant; W. T. Fiddes, 2 Park Road West, Birkenhead; S. Smith, 19 Old Hall Street, Liverpool, general broker; A. T. Smith, Gedge Street, Liverpool, chemical broker. There shall not be less than three nor more than seven directors, and the first shall be chosen by the subscribers to the memorandum of association. Qualification, 500*l.* Remuneration to be determined in general meeting.

DEATHS.

COLES.—On May 28, Mr. William Edwin Coles, chemist and druggist, High Street, Leighton Buzzard. Aged 33.

EWART.—On May 18, Mr. David Ewart, chemist and druggist, formerly in business at Tolbooth Wynd, Leith.

HAIGH.—On May 23, Mr. Richard Haigh, chemist and druggist, Victoria Street, Shrewsbury. Aged 76.

HARBURN.—On May 25, Mr. James Harburn, chemist and druggist, Staithes, Yorkshire. Aged 66.

HETHERINGTON.—On May 9, Mr. Thomas Hetherington, chemist and druggist, late of Foochow, China. Aged 37.

HOLDEN.—On May 23, Mr. John Holden, chemist and druggist, St. James' Street, Burnley. Aged 35.

PARKES.—On May 19, Mr. John C. Parkes, pharmaceutical chemist, Hare Street, Woolwich. Aged 59.

ROSS.—On May 30, Mr. Robert Ross, chemist and druggist, High Street, Old Aberdeen.

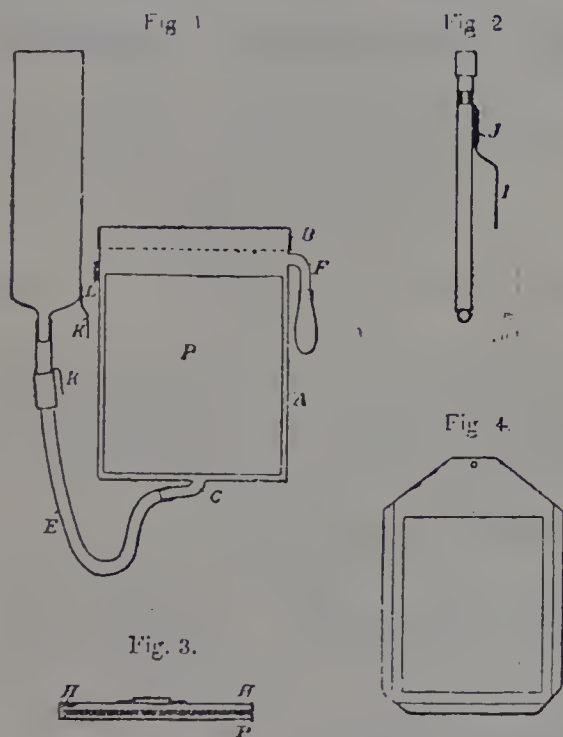
POWDERED EXTRACT OF INDIAN HEMP is made, according to *New Idea*, by saponifying the alcoholic extract with magnesia. This procedure makes the extract absolutely worthless.

SALBROMALIDE is a new name for antinervin, a Philadelphia antipyretic. It is said to be a mixture of bromacetanilide and salicylanilide; hence the name.

PHOTOGRAPHIC NOTE.

DEVELOPING WITHOUT A DARK ROOM.

At a recent meeting of the Liverpool Section of the Society of Chemical Industry Mr. Alexander Watt described an apparatus which he has devised for developing without a dark room. It consists of a metallic case A (fig. 1), only slightly larger than the plate for which it is intended, which can be closed light-tight by means of the lid B. It is furnished with two tubes, one, C, entering at the bottom of the bath, which can be connected by a piece of indiarubber tubing, E, to the funnel D; the other is near the top, just above the level of the plate P. The former serves to introduce the developer into the bath, and the latter, F, allows the air to escape and also acts as an overflow.



The funnel D and the indiarubber tube E are supported by means of the hooks K K, which fit into the eye L. The tubes are so bent that no light can enter the bath. An end view of the bath is shown in fig. 2, in which a movable hook I, fitting into the socket J, serves to fix the bath to any convenient support. A section, fig. 3, shows the plate P, the film side of which is kept from contact with the side of the bath by means of the metallic strips H. When the bath is intended for the development of films or paper prints, it is furnished with a carrier (fig. 4), into which the film or paper is inserted before being put into the bath, and when required for the development of several plates at one time, it is constructed with grooves, as in an ordinary plate box.

The bath is used as follows:—The dark slide containing the exposed plate and the bath are placed in a changing-bag, into which it is only necessary to insert the hands. The plate is then transferred from the slide to the bath, care being taken to keep the film side towards the back of the bath. After being closed, the bath is withdrawn from the bag into daylight, and fixed vertically to any convenient support by means of the hook. A vessel is placed under the overflow tube, and the inlet tube is attached to the funnel, which after being filled with the developing solution, is raised and lowered several times, to alternately fill and empty the bath, and so ensure the removal of air-bells from the surface of the plate. After standing sufficient time to complete the development, the solution is run off from the bath. The plate is washed by running water through the bath (either by means of the funnel or by attaching the indiarubber tube direct to a water-tap), after which it is

taken out, in daylight, and "fixed" in a covered tray. If it be desired to "fix" entirely in the dark, the operation may be conducted in the same bath, or in a similar one to which the plate has been transferred in the changing-bag. The final washing of the plate may be done either in the bath or in the usual way.

The best developer for use with the dark bath is ferrous oxalate, on account of its property of not producing "fog," even when a plate has been left in it for an hour. It should be made just before use from the following solutions, prepared according to Thomas's formulæ—

No. 1.

Potassium oxalate	..	..	300	grms
Potassium bromide	..	..	2.2	"
Water to make	..	..	1,000	cc.

No. 2.

Ferrous sulphate	..	..	400	grms.
Sulphuric acid	..	..	3	cc.
Water to make	..	..	1,000	cc.

To 4 parts of No. 1 add 1 part No. 2, and water to make 8 parts.

When the developer is used at once with Thomas's "Extra Rapid" plates, from 12 to 15 minutes in the bath at about 15° C. is sufficient to give a satisfactory negative, if the exposure has been correct. The time required to obtain a suitable density is found by placing the exposed plate in the bath and adding the amount of developer required to fill the bath, in four equal portions, at intervals of five minutes. Four densities are thus obtained by developing for 5, 10, 15, and 20 minutes respectively, from which observations the time that gives the desired density is selected.

Personalities.

MR. T. MATTHEWS has bought the premises and stock-in-trade of the late Mr. Edwin Yearsley, Market Place, Ross, Herefordshire, which he successfully carried on for upwards of fifty years.

MR. E. STOREY, of the firm of Bird & Storey, Pharmaceutical Chemists, 42 Castle Street East, Oxford Street, has been elected a vestryman of the parish of St. Marylebone. He was one of the Conservative candidates.

APOTHEKER K. BRETSONNEIDER, of Elberfeld, has been appointed manager of the new pharmacy at Dar-es-Salaam, German East Africa, the headquarters of Baron Von Soden, Governor of the Colony. A German pharmacy already exists in Zanzibar, which is now a British possession.

LAST week, Mr. F. W. Palmer, chemist, Ramsey, was entertained to dinner and presented with a handsome black marble-and-bronze clock and a pair of beautiful vases to match, on the occasion of his resigning the postmastership of the town, which he had held for thirty years.

WE have been asked to notify that a concert will be given at the lecture hall of Hinde Street Wesleyan Chapel, Manchester Square, on Wednesday next, June 17, at which the chair will be taken by Mr. Wm. Martindale. The object of the concert is to obtain some funds for a family left unprovided for by the sudden death of the father. Mr. J. C. Umney is named among the vocalists, and Mr. S. A. Walton, chemist, 10 New Cavendish Street, who appears on the programme as elocutionist, will supply tickets. We are told that the concert room is to be perfumed in a novel manner.

TONQUINOL, the new artificial musk, occurs as a snow-white, crystalline powder with which needle-shaped crystals are interspersed. The odour appears to be due to the presence of a nitro-terpene and nitro-sulpho-xytol. It is soluble in alcohol, water, fats, oils, ether and chloroform. The alcoholic solution (1 in 50), on considerable dilution with water, is very agreeable in odour, and the perfume is not precipitated. At present tonquinol is sold by the manufacturers at the rate of 1½d. per grain.



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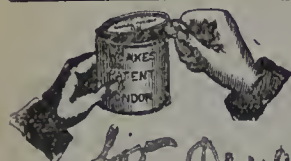
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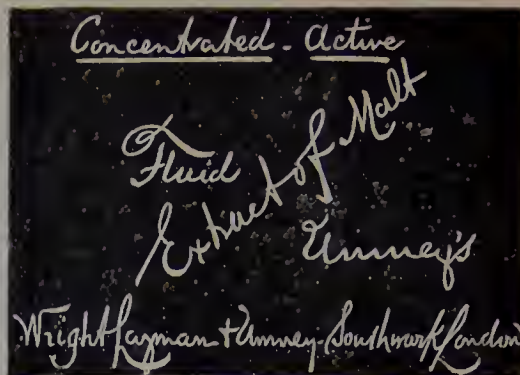
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Any Chemist who publishes a Monthly or Annual
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will oblige Messrs. A. ROWLAND & SONS, of 20 Hatton
Garden, London, by sending a copy of last issue, and
stating price for an advertisement of page or half-
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sent on application.

THE BEST TINCTURES, INFUSIONS, AND SYRUPS ARE THOSE MADE WITH

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THE PHARMACY BILL ABANDONED.

THE Pharmacy Acts Amendment Bill now appears in the
Parliamentary notices as "dropped." This is the ignominious
end, or at least suspension, of a measure which had such a

A Copy of this Supplement is inserted in every number issued of "The Chemist & Druggist."

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, JUNE 13, 1891.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

ADVERTISEMENTS for this Supplement can be received on FRIDAY MORNING, first post, though it is requested that these may be sent in as early in the week as possible.

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 10 (bottom folio), and must be received not later than THURSDAY AT NOON, to appear in the next issue.

All Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE, and crossed MARTIN'S BANK (LIMITED).

OFFICES: 42 CANNON ST., LONDON, E.C.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—LONDON, W.—First-class Dispensing Business, situate in a high-class locality; handsome shop and good house; the incomer must be prepared to invest about £1,500, for which full value is offered. Full particulars on application with business card or reference in London.

2.—LONDON, N.—Dispensing and Retail Business of very good class; established many years; returns about £900; *very profitable*, chiefly from Dispensing; the shop is handsomely fitted, and situate in a good business locality; house is very convenient and commodious; price £250.

3.—LONDON, N.—Dispensing, Prescribing, and Retail; chiefly cash; situate in a very busy locality; returns about £950; the shop is well stocked and convenient; good lease; vendor offers every facility for examination and special terms; price £700.

4.—LONDON, E.C.—Retail, Dispensing, and Prescribing, of good class; returns over £1,000; *very good profits*; well-fitted lock-up shop; price £800.

5.—LONDON, E.—Very nice locality; good middle-class Business; established about 18 years; returns £950 to £1,000 yearly; *profits exceptionally good*; comfortable house on long lease; price £350.

6.—LONDON, W.—Dispensing and Prescribing Business; established many years; returns nearly £900; handsomely-fitted shop, 8-roomed house, good lease; price £700; full investigation invited.

7.—LONDON SUBURB, S.E.—Vendor retiring; Business of good class; returns about £1,000; situate in a favourite suburb; particulars will be furnished at an interview, and special terms are offered to a suitable man.

8.—SOUTH COAST.—Fashionable watering-place; small good-class Dispensing and Retail; returns about £400 yearly; comfortable house, near the sea; price £370. Particulars on application.

9.—YORKSHIRE.—Light Retail and Prescribing Business, all cash; returns £700 yearly; *net profit over 33 per cent.*; handsomely-fitted shop and good stock; very low rental; price £600; capital opening for Dentistry.

10.—SOMERSET.—Rural district; Dispensing, Prescribing, and Agricultural trade; established many years; returns £650 yearly; capital house and large attractive gardens, stabling, &c., at low rental; price £550.

11.—ESSEX.—Capital business locality; old-established Mixed Business; returns £1,650 yearly, *good profits*; large, well-fitted shop and extensive business premises; large house and very good garden; the business admits of considerable extension; about £1,200 required; liberal arrangements can be made.

12.—SUFFOLK (Partnership).—A partner is required in a Mixed Business, including Wines and Spirits; the connection is a very good one, and can be largely extended; the incomer must be prepared to invest about £700, for which an ample return is offered; references to be exchanged; full particulars on application.

13.—SUSSEX.—Good-class Business, situate in a favourite town; returns about £700 yearly from good-class Retail and Dispensing; handsome shop and good house; price £480.

14.—ISLE OF WIGHT.—Select Retail and Dispensing Business; returns between £400 and £425 yearly; *all profitable business*; the shop is well stocked; situation prominent; rent low, on lease; price about one year's returns.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country. Particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

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STOCKS AND FIXTURES BOUGHT FOR CASH.

NORFOLK.—Old-established Retail in good market town; returns £1,100 to £1,200; stock and fixtures at valuation; about £750.

WEST.—Good family Retail, with fittings; agency returning £1,300; large house, garden, &c.; price about £800.

YORKS.—Returns £1,600; Country Retail, with Wines, Spirits, Ales, and Stout; premises fully licensed; net profit £500, can be much increased; liness sole cause of sale; price about £1,000; goodwill moderate; stock and fixtures at valuation.

LANCASHIRE.—General Retail, with Wines and Spirits; returns £1,100; profits large; rent £35; price £700, or £100 goodwill and valuation.

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HOME COUNTY.—Important town, 30 miles out; first-class Retail and Dispensing Business, making a net profit of £360 yearly, under management; excellent corner business premises; large house; low rent; price £900; most desirable investment.

YORKSHIRE.—Ready-money Retail, Dispensing, and Prescribing Business; returns £1,100; net profit £400; rent £75; 12-roomed house; large garden; same bands many years; retiring; price £750, or valuation terms arranged.

DERBYSHIRE.—Market town; good-class Retail, Dispensing, and Prescribing Business; nothing heavy or mixed; best position; slight opposition; returns £650; net profit nearly £250; rent £26; 8-roomed house; price £450; investigation courted.

HAMPSHIRE.—Increasing locality; good-class Retail and Dispensing Business; returns about £600 yearly; corner shop, well fitted and stocked; quite unopposed; low rent; good house; price £300; for sale solely on account of ill-health.

OXFORDSHIRE.—Large town; Retail and Dispensing Business; returns £600; situated in a very commanding main road position; a good opportunity for establishing the cash system; valuation only about £250; no goodwill.

KENT.—Important business town; Retail, Dispensing, and Prescribing trade; returns £2,000 at good prices; net profit £600; large shop; good position; low rent, on lease; price £1,100, part can remain; or partnership entertained.

LONDON, S.E.—Death vacancy; in main road; handsomely fitted double-fronted shop; returns now £400; late owner did £800; 8-roomed house; moderate rent, on lease; valuation only required, about £225; no goodwill.

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TO be Disposed of, an old-established Light Retail and Prescribing Business in London; returns about £550; very profitable, and capable of considerable improvement; situated in a busy market place, and absolutely unopposed. M. P. S., c/o Mr. Robert Smith, Straker Bros., 44 Bishopsgate Street, E.C.

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SOMERSET.—Old-established Retail, Dispensing, and Prescribing trade; returns £800; very profitable; price £600; handsome pharmacy and good house.

LANCASHIRE.—Good-class Retail and Dispensing; returns £520; price valuation of stock and fixtures.

WEST OF ENGLAND (fashionable health resort).—Old-established Retail and Dispensing; returns £1,200; price £1,200.

SURREY.—Light Retail and Dispensing; returns £500; price £650; good house; handsome pharmacy; agency pays rent.

NORFOLK.—Good-class Family and Dispensing; returns £850; price £700; long lease at a low rent; good house.

HOME COUNTY.—Light Retail and Dispensing; returns £400; low rent; price £320; large and convenient house, with nice garden.

SUSSEX.—Old-established Retail and Dispensing, with good sale of own specialties; returns £600; price £450; good house and garages.

KENT.—Family and Dispensing trade, with Post Office; returns over £800; price £600; large house and garden.

BUCKS.—Light Retail and Dispensing; very low rent; returns £450; price £350; good house and garden; worth attention.

MIDLANDS.—Retail, Dispensing, and Prescribing; returns £500; price £200; double-fronted handsome pharmacy.

LANCASHIRE.—Good-class General Country Retail and Dispensing Business; in same hands many years; returns £1,300; rent low; price £1,000; open to reasonable offer; worth attention.

EASTERN COUNTIES.—Old-established Country trade; returns £1,000; price, valuation only; large and convenient house; rent £40.

HANTS.—Light Retail and Dispensing; returns £400, and increasing; large and convenient premises, held on long lease at a very low rental; price £200.

LONDON, N. (Main Road).—Good-class Retail and Dispensing; returns £400, and can be doubled with ordinary attention; price £200.

LONDON, S.E.—Retail and Prescribing trade; unopposed position returns £500; price £400; rent £40; good house, &c.

LONDON, S.E.—Suburb.—Retail and Dispensing; handsomely fitted double-fronted shop; returns £1,400; rent £20; price £1,100; or a Partnership would be entertained, with a view to present owner retiring.

LONDON, S.—Good-class Retail and Dispensing trade; returns £500; low rent; price £350; capital position in marketing thoroughfare.

LONDON, N.—Old-established Retail, Prescribing, and Dispensing; many years in same hands; returns £570; price £500.

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BUSINESSES FOR DISPOSAL—Continued.

LONDON SUBURB.—For immediate sale, having purchased large country business, a good-class Retail and Prescribing Business; returns are £500; rent £36; net profit £200; 9-roomed house, small garden; no opposition; cash price £250. T. J., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EASTERN COUNTIES.—First-class Retail and Family Business; increasing returns; good profits; reason for disposal, taking larger concern; every investigation allowed; in coming about £600; Post Office attached. Full particulars from H. A., c/o Messrs. Hodgkinson, Treasurer & Clarke, 193 Upper Whitecross Street, E.C. No agents.

HOME COUNTY.—First-class Retail and Dispensing Business in best position in a town of 10,000 inhabitants, with slight opposition; full prices obtained; net profit about £300 per annum; good house, with garden; price £550 or reasonable offer; strictest investigation. "Potas," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO CHEMISTS AND DRUGGISTS.—For sale, good Country Business (Notes), with Grocery attached; good house and garden; returns between £300 and £700, relinquishing through ill-health; stock and fixtures at valuation; no goodwill. For further particulars apply to Richard Widdowson, Chemist, Market Street, Bulwell, Nottingham.

FOR SALE. consequent upon death, Chemist and Druggist Business; splendid position in busiest thoroughfare and centre of large city in West of England; mostly Prescribing and General Family Retail, with a good connection, and easily capable of extension with capital. Apply by letter, to S. N., c/o Messrs. Quas. Barker & Sons, 8 Birch Lane, E.C.

£1,150.—All chance for an industrious young man about entering and wishing for a good Mixed old-established Business; returns closely approaching £1,500 at full prices; net profits about £500; no opposition worth note, reasonable offer not rejected. Address, "Circumambient," c/o Harveys, 6 Giltspur Street, and Umney, 50 Southwark Street.

FOR DISPOSAL. a thoroughly genuine and old-established Business, situated in the best position in a cathedral city in one of the Western Counties; first-class Dispensing, Retail, and Agricultural; returns exceed £800; very good profits; convenient house; moderate rent; immediate possession; every investigation allowed; easy terms to an immediate purchaser. Apply W. T., care of Messrs. Evans, Lescher & Webb, 60 Bartholomew Close, London, E.C.

BUSINESSES FOR DISPOSAL—Continued.

BRANCH Business, in a leading West of England seaside town; good position; handsomely fitted; good stock; been neglected; easy terms. "Chemicus," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

GENUINE old established Business, Market Town, South Midlands; good house, premises, and garden, greencouse, coachhouse, &c.; returns £1,000, good profits; rent £55 on lease; price £1,000; no agents. Apply, with reference, X.Y.Z., Messrs. Evans & Co., 60 Bartholomew Close, London.

FOR Disposal, a genuine Chemist's Business in Kent; last year's returns nearly £700; main thoroughfare; corner shop, with private entrance; full particulars to an intending purchaser; price £500. Address, "Specs," care of Mr. McCallum, 53 Faulden Road, West Hackney, London.

£350.—Genuine well-stocked Business, in first-class growing suburb; returns about £500 increasing in response to attention and energy applied; proprietor entering medical, could assist purchaser if desired; no agents. Apply, by letter, S. Shaugh, Speyer Bros., 7 Lambury, E.C.

FOR SALE.—Obtained and Druggist Business in thriving manufacturing town, Yorkshire; fittings (Curtis & Co.) and stock nearly new; good shop, in principal street, held on easy terms; only small capital required; good opening to anyone accustomed to country trade. Apply, Messrs. Longbottom & Sons, Halifax.

DARLINGTON. main thoroughfare, Chemist and Druggist's Business (established 1868); large double-fronted shop, with fixtures complete; small stock; convenient house, cellars, &c.; a capital opening, with no opposition; no reasonable offer refused. For further particulars, apply to "Manager," 12 Blackwellgate.

MIDLANDS.—Fifty miles from London; market town; business doing from £10 to £12 weekly, and increasing; last week, £14 15s.; capital house and well situated; investigation courted; no resident dentist; population within two miles, 10,000; price, stock and fixtures at valuation. "Aqua," St. Stephen's House, Oxford.

LONDON, N.W.—Light Retail and Prescribing Business for immediate disposal, in populous neighbourhood; established 16 years; good opportunity for a branch, or well suited for a beginner; every investigation courted. Apply, personally or by letter, to G. Innes, 34 Lisson Street, Marylebone Road, N.W.

£120.—A genuine Chemist's Business for immediate disposal in an East-Coast watering-place; unopposed position; nicely-fitted corner shop; rent £19; average takings £5 per week, and capable of being considerably increased; a splendid opportunity for a new beginner; season just commencing. Apply, "Mauna," care of Jno. Martiu, jun., Fylingdales, Whitby.

DRUG and Druggery Business—Two very genuine suburban shops, now worked in conjunction, in important thoroughfare; total income about £900, which includes stock, fixtures, and goodwill of both, all at valuation; returns £2,051 in 1890; profits under management £350 annually; trade this year shows marked increase. Apply, Frederic Goodeve, Cannon Street, Birmingham.

GENUINE BARGAIN.—To be sold, three valuable Proprietary Toilet Preparations, together with registered Trade Mark, Stock-in-Trade, etc.; no special knowledge or plant required; can be worked from any address; very large profits on turnover, and capable of unlimited extension; good reasons for disposing; price to immediate purchaser, £70. Address, 217/25, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

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LIGHT Retail and Prescribing Business in the country, South preferred; advertiser has £100 at command; situation with view to succession not objected. Apply, "Tenax," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNERSHIP.

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WANTED, a partner or a good pushing Assistant; or will sell very cheap a business in one of the most thriving towns in America (about £400 required), owner not having sufficient time. Address, Horrocks, Vancouver, B. C., Canada.

PARTNER required; excellent chance for young man wishing to start in business to acquire partnership in rapidly increasing concern; profits more than half; returns, second year, £750, and will shortly be double; every investigation courted, and price as may be agreed upon. Apply, "Alpha," 16 Amberley Grove, Addiscombe, Croydon.

SALE BY AUCTION.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO CHEMISTS.—For SALE by AUCTION, at the Mart, Tokenhouse Yard, Lothbury, E.C., on Thursday, June 25th, at 1 o'clock precisely, the well-built long-leasehold Shop and Residence, No. 28 Tulse Hill, situate in an excellent position in this favourite high-class metropolitan suburb. There has been a good Chemist's and Druggist's Business carried on therein for many years, and possession will be given on completion of the purchase. The trade fixtures and fittings may be had at a very low valuation. Particulars of Messrs. Billinghurst, Wood & Pope, Solicitors, 7 Bucklersbury, E.C.; or of Messrs. Herring, Son & Daw, Auctioneers, 62 Coleman Street, E.C., and Brixton Hill, S.W.

TO LET.

SHOP to Let.—Good opening for Chemist; plate-glass double fronts; good house and garden; fast rising neighbourhood; low rent. Apply, E. Boyes, Woburn Sands, Beds.

TENDER.

J. W. TOD & CO., Limited, Drysalter, Perfumers, and Manufacturing Chemists, City Road, Melbourne, invite tenders for supply of Acids, Tart, and Cit., for forthcoming season. Particulars from H. M. Tod, 10 Adel Lane, Great Tower Street.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

APPRENTICE, in a good Country business, near London; an intelligent, well-educated youth; moderate premium; comfortable home; Nonconformist family. Apply to R. Griffith, Pharmaceutical Chemist, Slough.

APPRENTICE.—In comfortable home in healthy suburb of London, with time for study, and every opportunity of acquiring thorough knowledge of the business. F. S. Dewey, 6 Townshend Road, Regent's Park, N.W.

WANTED an educated gentlemanly youth as Apprentice in a first-class Retail and Dispensing business in the North (in doors); one who has passed the Preliminary preferred. Address, "Yorkshire," c/o Messrs. Allen & Hanbury, Plough Court, Lombard Street, London.

OWLES & SON, Pharmaceutical Chemists, Great Yarmouth, have a vacancy for a well-educated youth as Apprentice; premium required; easy hours; no heavy trade; not opened on Sunday; an Improver or Turnover would be treated with. For terms, apply to above.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TEMPORARY Assistant, from June 25th to July 4th. Apply, stating terms and reference, Lench, Chemist, Macclesfield.

WANTED, Junior Assistant (indoors). Usual particulars to Jones, Chemist, Barry Dock, South Wales.

WANTED, at once, an Assistant in a Dispensing business. Apply, McLean & Co., Dispensing Chemists, Birmingham.

IMMEDIATELY, Assistant, about 23 or 24; also Junior, 21 or 22; personal application preferred. Knight, 452 Edgware Road.

TRAVELLERS for first-class Perfumery, Toilet Requisites, and Sundries. 54/6J, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, Assistant, indoors, for a Wholesale Drug and Druggery business, with occasional travelling. Apply, Cowgill, Suwerby Bridge, Yorks.

CRUSE & CO., Southsea, have vacancy for Qualified Assistant, about 23 years of age. Apply, enclosing card (to be returned), with full particulars.

WANTED, a good active Assistant for the Retail Counter. Reply, with reference and salary required (outdoors), to James Stewart, Chemist, Cheltenham.

SITUATIONS WANTED—Continued.

JUNIOR (in London); 19; 5 years' experience. George, 11 The Grove, Wandsworth.

LOCUM-TENENS for one week; good dispenser. Simpson, 4 Wynne Road, Brixton.

JUNIOR; tall; aged 22. "Unguent," care of T. D. Marshall, Solicitor, South Shields.

AS JUNIOR; aged 22; 7 years' good experience. R., 3 St. James's Street, King's Lynn.

LOCUM, Trinity Square, Llandudno; disengaged early July. "Locum," 54 High Street, Stroud.

LOCUM-TENENS or Mannger; aged 38; abstainer; qualified. "Chemist," 9 Wellington Street, Strand, W.

LOCUM-TENENS; qualified; 50; disengaged; active; single. "Occupier," Lullington Lodge, Harbury, Leamington.

WHOLESALE in any responsible position; first-class experience; age 34; town or country. C., 88 Eland Road, S.W.

JUNIOR Traveller or Dispenser; first-class experience; 7 years wholesale manufacturing. "Naphthol," 42 Melbourne Street, Leicester.

LOCUM-TENENS (elderly) during absence; long experienced; gentlemanly address; country. "Pa. Oh.," 39 Powis Square, W.

DISENGAGED; minor qualification; fluent French; age 23; height 5 feet 7 inches; outdoor. G. Leseigneur, Villot, St. Martins, Jersey.

MANAGER of Branch, or Locum-tenens; qualified; thoroughly reliable; aged 39; excellent references. H., 194 Hnrrow Road, London.

MANAGER, qualified; experienced Tooth-extractor and Prescriber; married, one in family. Address, "Lapis," 15 Manor Park Road, East-end, Finchley.

AS Junior or Dispenser to Surgeon or Institution; outdoor; minor qualification; age 22; London preferred. W. Roberts, c/o Hughes, Chemist, Gloucester.

ACTIVE Junior; disengaged; medium height; 6½ years' experience; references; preliminary; outdoor preferred. "Statim," 134 Oldham Road, Manchester.

BILL DISTRIBUTOR wants situation; 25 years in last; knows Lancashire thoroughly; references if required. W. Cartwright, 142 Brook Street, Ashton-under-Lyne.

BRANCH Manager; disengaged; married; no encumbrance; aged 43; height 5 ft. 10 in.; unqualified; good general experience. "Hydrarg," 24 Belmont Road, Uxbridge.

BRANCH Manager; varied experience; good Prescriber and Tooth Extractor; married; good references. "June," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

INDIA or Colonies.—Certificated Pharmaceutical Chemist, aged 28, speaking English and German, desires appointment by September. Address, Lewis Erdélyi, Trencsin-Teplicz, Hungary.

ASSISTANCY in first-class Dispensing establishment; thorough knowledge of Continental dispensing; Irregular. "Alpha," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLER having a large connection in Ireland, North Wales, Lancashire, and Yorkshire amongst Chemists and Surgeons, desires engagement; good references. Address, T. G. Martin, 21 Aston Lane, Perry Barr, Birmingham.

ASSISTANT or Surgeon's Dispenser; unqualified; aged 24½; height 5 ft. 4 in.; 9 years' experience; good Prescriber and Extractor; some time for study; state particulars, salary, and hours. H. L. H., 4a Monkfort Road, Strood, Kent.

GENTLEMAN, 36 with wide experience and large first-rate connection (Scotland particularly), desires re-engagement as Traveller or Manager for good London wholesale Drug house; highest references. D., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, engagement as Manager, Locum-tenens, or Assistant in Douglas, Ramsey, or other seaside resort; qualified; experienced; good Prescriber and Tooth-extractor; would purchase suitable business. Address, 2235, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

EXPORT.—Advertiser, with 10 years' experience in London and South America, thoroughly acquainted with Colonial trade, and able to work up a connection, seeks engagement; Spanish, French, English, and German correspondent; unexceptional references. Reply to L. M. 57, c/o Deacon's, Leadenhall Street, E.C.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

WANTED, by Dental Surgeon, Rooms suitable for consulting purposes, furnished or unfurnished, with good first-class Chemist; Now Bond Street neighbourhood preferred. Address, G. D., Bank Chambers, The Square, Bournemouth.

A LONDON FIRM of Druggists and Chemical Agents are open to act as Agents and Correspondents and to represent manufacturers, and invite offers. By letter, in first instance, to M., 48 Liverpool Street, Walworth, London, S.E.

MECHANICAL DENTISTRY executed for the profession by a Dentist having a staff and all modern appliances at command; in gold, dental alloy, or vulcanite; terms strictly moderate; repairs returned same day as received; lessons given in Operative and Mechanical Dentistry. Address, "Dens," c/o Carter, 12 Marina, Ramsgate.

CARAWAY SEEDS, finest Dutch; sublime Olive Oil in pyramid tins, guaranteed pure; Camphor, 8 and 4 oz. tablets; Wormwood and Horehound in bales, bunches with flowers on; Irish Moss, in 1 and 3 cwt. bales; Gentian Root, 20 bales uncut, all ready for delivery. Prices on application, and for other Herbs, &c. Prompt shipment to Liverpool in original packages. Briscoe & Co., Produce Brokers, African Chambers, Liverpool.

NOTICE to Chemists, Oilmen, and others.—The Manchester and District Mineral Water Trade Protection Association hereby give public warning that, through the heavy loss and dangerous practice of putting drugs, &c., into mineral water bottles, the above Association will take legal proceedings against any person or persons making such illegal use of its Member's Trade Mark Bottles after this date.

Signed on behalf of the Council.

Barlow Street, Manchester. THOS. CLARKSON, Chairman,
T. W. LAWSON, Secretary.

PURSUANT to an Order of the Chancery Division of the High Court of Justice, made in the matter of the Estate of Alfred Reginald Fresson, deceased, Fresson v. Fresson and another 1890, F. 1522, the creditors of Alfred Reginald Fresson, late of 30 Queen Street, Burslem, in the County of Stafford, Chemist and Druggist, who died in or about the month of December, 1883, are on or before the 10th July, 1891, to send by post prepaid to John Garrett Morten, of the firm of Morten, Cutler, & Co., of 99 Newgate Street, in the City of London, Solicitors for the defendant, Lizzie Fresson, one of the Executors of the deceased, their christian and surnames, addresses and descriptions, the full particulars of their claims, a statement of their accounts, and the nature of the securities (if any) held by them, or in default thereof they will be peremptorily excoimded from the benefit of the said order.

Every creditor holding any security is to produce the same before Mr. Justice North, at his chambers, the Royal Courts of Justice, London, on the 24th July, 1891, at 12 o'clock at noon, being the time appointed for adjudication on the claims.

Dated this 4th June, 1891.

MORTEN, CUTLER & CO.,
99 Newgate Street, London,
Solicitors for the said Lizzie Fresson.

PRELIMINARY AND MINOR.

STUDENTS! If you wish to prepare for Examination easily and thoroughly, without leaving business or expending time and money on "correspondence systems" (?), write to Mr. Filtness, Chemist, Crowhorse Cross, Tunbridge Wells, for "How to Prepare for Exam.," gratis and post free. Success guaranteed. No Fee.

PRELIMINARY AND MINOR.

TULLY'S method of preparation is without equal; send for particulars, Knotty Points in Latin Grammar, 1s. 6d.; Caesar Simplified, 1s.; Metric System Simplified, 1s.; How to Write an Essay, 3d.; Equations Simplified, 1s.; Student's Herbarium, 100 specimens, 7s. 6d., post free Mr. J. Tully (Hill's Prizeman), Chemist, Hastings.

STIBLING'S "MINOR AIDS."

Organic Materia Medica. Concisely tabulated, thus saving much time and laborious reading. In stiff boards, cloth gilt, post free, 1s. 7d. Notes on Dispensing 3rd Edition. Post free, 1s. 1d. Botanical Companion: How to Describe a Plant, &c. Post free, 7d. Doses, Sp. Gravities, and Percentages of B.P. 1885 and 1890. Vest-pocket edition. Post free, 6d. Sold by H. KIMPTON, 54 High Holborn. All orders by post should be addressed to the Publisher.

GO WER, 4 Lancing Road, Ealing, London (late of Hackney).

READ AND USE

THE ART OF DISPENSING. Price 3s. 6d.

ALPHE'S HANDY BOOK OF MEDICINE STAMP DUTY. Price 2s. 8d.

PROCTOR'S MANUAL OF PHARMACEUTICAL TESTING.

Price 1s. 6d.

VETERINARY COUNTER PRACTICE. Price 3s. 6d.

Published at the Office of THE CHEMIST AND DRUGGIST,
42 Cannon Street, E.C.

booming in the trade as surely no proposal ever had before it. This is the sixth of the curriculum Bills which have been drafted for Parliament, and the fourth which has been actually before the Legislature; and this calculation does not include the abortive effort to establish the scheme by means of by-laws.

At the annual meeting of the Pharmaceutical Society the President assured his disciples that if they could once get their Pharmacy Act Amendment Bill on the floor of the House of Commons they could carry it any day by a large majority. We do not know what basis Mr. Carteighe may have had for his confidence, but we do know that there were members of Parliament who entertained an opposite opinion. Certainly the champions of the Bill, either in or out of the House, were not frantic in their efforts to test the point. The Bill had a respectable backing, but Sir Henry Roscoe and Dr. Farquharson showed no disposition to emulate the example of energy set them last year by Mr. Sexton and Mr. Johnston in piloting the Irish Amending Act to the desired haven of the statute-book.

We have published the names of six members of Parliament who had given notice of opposition to the Bill, and there were others who had given favourable attention to the representations of its opponents. These fully balanced the five names which appeared on the back of the Bill as its supporters.

There were three classes of active antagonists. First, there were the unqualified assistants and branch-managers, whose claim was referred to by Mr. Carteighe at the Pharmaceutical Society's annual meeting. They demanded that a new special register should be opened for them, on which should be placed the names of men recognised in consequence of long service in the trade to be competent to dispense prescriptions and to sell poisons. We readily agree with the President that it is the duty of the Pharmaceutical Society to oppose this pretension; but we have very little doubt that the claim would be allowed by Parliament if it should ever be fairly stated in Committee of either House.

The herbalists, who have a sufficiently strong organisation, were also ready. An influential member of the House, whose name did not appear among those who blocked the Bill, had promised to champion their cause, and might be relied upon to present it effectively. The herbalists demanded a definition of the term "medical prescription," such as should clearly exempt their business, or a clause declaring that the Bill should not interfere with them, or, failing either of these concessions, they would oppose the Bill.

Thirdly, the shop-keeping doctors of Scotland had to be reckoned with. It is well known that in some parts of Scotland, and in Glasgow especially, a large part of the drug-trade is carried on in open shops owned by doctors, but frequently—perhaps we might say generally—conducted by unqualified men. A blow was struck at the sale of poisons in this manner by a prosecution in Glasgow won by the Pharmaceutical Society last year, but it has not been followed up with any vigour. The doctors, however, very rightly saw that the clause in the Bill forbidding anyone but a registered person to compound a medical prescription except under supervision was a serious extension of power, which might be used against them. A paper was read before a full meeting of the Glasgow Southern Medical Society last month by Dr. J. Walls White, of Uddingston, and as a result a committee was appointed with full powers to oppose the Bill. Dr. White said, "It is out of the question that medical men can give constant supervision, as of necessity they must make visits." And he objected to yield to the obvious alternative of shutting up the medical shops without a struggle. He quoted with effect some passages from Mr.

Carteighe's Scottish campaign speeches. In one he quoted the President as saying: "The medical practitioners had a perfect organisation, 16,000 strong, and he did not think they could touch them at present. . . . They must proceed gradually, because they could not afford to begin the campaign by quarelling with 16,000 medical men." In the same speech the President is reported to have told his audience "He had still a few things up his sleeve that those present did not know of, and they would consider him a great fool if he were to go stumping about the country telling them all the little things they were hoping and dreaming for."

It would be ridiculous to be surprised or indignant at these various classes of opposition. Men will naturally and properly fight for the preservation and protection of their livings. What we object to is a Bill purposely drafted in vague language, leaving the possibility of things up the sleeve. There are demands which chemists can with good reason put before Parliament. Some of these were not in the Bill. But to aim at objects not definitely stated, and perhaps not suspected, is not a creditable policy, and is very unlikely to be successful. Dr. White's paper furnishes an argument in support of this position. His intimation of probably concealed intentions gave him the strongest basis for opposition; his direct argument that medical men cannot give that supervision to shops which, in regard to the sale of poisons, the law says they must give unless they employ qualified assistants, was evidently his weakest point. We established beyond all doubt last winter that the Bill did not express the aspirations of the trade, who will therefore hear with equanimity of its collapse, and who would watch with comparative indifference the contest between its supporters and its opponents, if by any chance this should come off in a subsequent session of Parliament.

COUNCIL-MADE LAW.

"THE President, Vice-President, and Honorary Treasurer must be elected from those members of Council who are likewise Members of the Pharmaceutical Society." This is a regulation which was drafted by the Council of the Pharmaceutical Society of Ireland, and approved among certain other regulations by the Privy Council on November 29, 1890. It prevents any direct representative from holding either of the offices named. How came that order to be drafted? If, as we presume, it was one of the regulations agreed upon by the Council at their November meeting, under section 12, subsection 1, of the Act of 1890, it was clearly *ultra vires*. The clause referred to required "the Society" (not the Council) to "make regulations for the election of registered chemists and druggists and registered druggists of the Society under the title of Associate druggists." That provision gives no power to the Society, nor to the Privy Council, to effect an alteration in the methods of appointing the officers of the Society. At the last meeting of the Irish Pharmaceutical Council, Mr. Gibson, one of the druggist representatives, called for the excision of this regulation on the ground of its illegality. He pointed out that the Council had endeavoured to get this condition of things established by statute, and that in this they had failed. The House of Lords had declined to adopt their proposal. They had therefore enacted it themselves. And this proceeding they seemed to regard with supreme complacency, though their spokesmen intimated that if the druggist members of the Council would behave themselves nicely for a year or so they might be inclined to reconsider their regulation. The most astonishing part of the business is that the druggist section appeared to be promptly satisfied with this patronis-

ing promise. Mr. Gibson withdrew his motion "with pleasure." These gentlemen will do well to acquire a little more backbone. There ought to be no time in business meetings for frivolous motions which can be withdrawn "with pleasure." We should expect that when the matter comes to be known by the Irish Privy Council, the authorities there will themselves require the deletion of a regulation, which we should suppose they sanctioned inadvertently.

THE BRITISH ALKALI INDUSTRY.

THE report for the year 1890 of the Chief Inspector of Alkali Works is by no means a discouraging document, and it gives us an opportunity of treating more fully than we did last week this subsidiary department of British industry and commerce. It would be a mistake to contrast too closely the figures which Mr. Fletcher gives with those of the Board of Trade; in point of fact they have little relation to each other, Mr. Fletcher's merely showing the field of operations occupied by his staff.

There are 129 alkali works in the United Kingdom, but 1,307 other works are visited by the inspectors. So far as alkali is concerned, what we have to consider in the commercial and industrial aspects is the production of salt, alkali, and bleach. The intimate relation of the salt and alkali industries is well known. Mr. Fletcher tells us that, "of the salt produced in the United Kingdom about one-third is exported. Of the remaining two-thirds three-fourths are used in the soda industry, leaving only one-fourth to supply all that is required for domestic use, the salting of provisions, for agricultural, and all other purposes." These figures are approximate, for we find that the production last year—which, by the way, is regulated to some extent by the price of coal—was 1,764,064 tons; of this 885,079 tons were used by alkali makers, 726,021 tons were exported, and 153,014 tons only were used for all other purposes, which includes what is required in glazing pottery and for similar purposes. The amount of salt employed in alkali manufacture represents 585,637 tons of 58 p.c. soda ash, and from the Board of Trade statistics we gather that 316,585 tons of this, representing a value of 2,089,298*l.*, were exported during the year, leaving only 269,052 tons for home consumption. A large proportion of salt never passes the salt-cake stage, being employed in this form for glass manufacture. Our exports of glass last year amounted to 3,070,456 square feet of sheet glass, and 1,350,238 cwt. of other forms, together valued at 1,065,433*l.*, but we imported 1,070,786 cwt. valued at 1,277,840*l.* It has also to be considered that much of our production of alkali is exported in the form of soap, of which last year we sent 496,930 cwt., valued at 1,262,304*l.*, to foreign customers. Bleaching powder, the most valued product of the alkali industry, was also exported to the extent of 86,835 tons of the nominal value of 506,706*l.*, the United States, Germany, Russia, and Belgium taking the bulk of it—the United States alone more than one half.

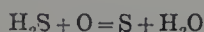
These figures amply show that our peculiar position in regard to native supplies of salt and coal enables us to produce alkali in such abundance as to supply all home industries and households with cleaning materials, and to export at least twice as much. The United States is our best customer for alkali, having taken, apart from bleaching materials, 199,245 tons last year, or 30,000 tons more than in 1889, thanks to Mr. McKinley. It is understood that ammonia-soda mainly is represented by this. The British Possessions take 21,900 tons; Russia, 18,375 tons; then Spain and Italy are the next best customers, Germany and France taking very little real alkali—indeed, France and Holland are chiefly responsible for sending to us last year

1,867 tons of alkali. Altogether our export trade in alkali, glass, salt, and soap amounts to 5,500,000*l.* a year. Such is the commercial side of the report.

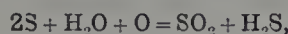
On the industrial or technical side interest is rivetted by the battle between the old Leblanc process, with all its imperfections, and the ammonia-soda process, with its great advantages and equally great lackings. The battle is a keen one, but it is no longer between Leblanc and Solvay, since others have come into the field as fully equipped as they and without some of their heavy trimmings. The old process made progress last year, using 602,769 tons of salt, as compared with 534,203 tons in 1889; but the ammonia-soda makers used 252,260 tons of salt, as compared with 219,279 tons in 1889. Leblanc makers live on their "bleach," and the others succeed in making fortunes without it. Yet the latter do not abandon the hope of rivalling their opponents in the bleach department, although 1890 has gone and we seem no further forward with the Weldon-Pechiney magnesium oxychloride process. Mr. Fletcher gives workers of that process in this country some pretty compliments about their ability and perseverance; but there is no advance to record, only "inconvenience is liable to arise from the discharge of chlorine during the drying process," also after the material comes out of the final roasting furnace, and "the aspirating arrangements have given some trouble." It is, in short, the old story of Nature upsetting Science. Interest for a time must, therefore, centre round what may be called the save-all processes—namely, those which produce soda and chlorine and recover sulphur at the same time. At present the best of these is the process patented by Messrs. Haddock and Leith, which proposes to recover the sulphur from Leblanc vat waste; but instead of combining therewith the manufacture of ammonia-soda, it aims at simultaneously converting salt-cake into carbonate of soda of a strength and purity equal to ammonia-soda by a wet method of decomposition, and without the use of ammonia. This process is an exceedingly ingenious one, conducted in four stages. The first stage is the manufacture of calcium sulphhydrate, which is done by passing sulphuretted hydrogen through an emulsion of Leblanc vat waste. After this is fully charged and allowed to settle, the clear liquor is mixed with a saturated solution of salt-cake. The result is that the sodium sulphate and the calcium sulphhydrate interact, calcium sulphate being precipitated, and sodium sulphhydrate remaining in solution. But 4 per cent. of calcium sulphate remains in solution, a rather astonishing amount, and is precipitated as carbonate in the third stage. The fourth and final stage, apart from evaporation, consists in the carbonation of the sodium sulphhydrate solution, an operation performed by passing it through a tower into which limekiln gas is forced. Sodium bicarbonate is formed, three-fourths of it crystallising out; sulphuretted hydrogen is given off, and is collected and utilised as such in the first stage or is converted into sulphur or sulphuric acid. The mother liquor yields a crop of crystals on evaporation, and the liquor from that is used for neutralisation purposes in the course of the process. It will be seen that this invention is the Leblanc, Solvay, and Chance processes rolled into one. It gives the chlorine of the first, takes advantage of the carbonating of the second (without the ammonia), and it advances Chance's idea to being not only a waste-recovering, but an alkali-producing, process. Chance applies carbonic acid to calcium-sulphhydrate; Haddock and Leith apply it to the sodium-salt. At present the process is only on its trial; but it has advantages over others like it which have failed. Other new processes are also being tried, and the aim of all is to produce salt-cake (therefore chlorine) and alkali, and save sulphur.

These processes will be watched with the more interest owing to the fact that the Chance-Claus sulphur-recovery process has not been an unqualified success. Inspectors have had more complaints about it than anything else during the year. When Mr. Chance first described his invention it seemed complete, and fifteen works adopted it, putting down plant valued at 500,000*l*. They had not long started working when it was found that the gases from the Claus kiln contained sulphuretted hydrogen and sulphurous acid equal to 10 grains of sulphur per cubic foot. This is not only a distinct loss, but, as may be imagined, an intolerable nuisance. Mr. Fletcher explains the difficulty thus:—

"The cause of the trouble is the incompleteness of the reaction of sulphuretted hydrogen when burnt with a restricted quantity of air. The simple formation of sulphur and water as would be expected from the formula—



does not represent all that takes place; but possibly owing to a reflex action between the vapour of sulphur and that of water, such as may be represented by—



both sulphuretted hydrogen and sulphurous acid are found in the residual gases."

In several works special means have been adopted for abating the nuisance, but generally the plan adopted has been to erect special furnaces, through which the gases might be passed, with sufficient air to burn the sulphuretted hydrogen and to allow the sulphurous acid thus formed to pass away through the chimney of the works. This has now been done. Where no better uses for the gases could be devised, these combustion furnaces have been erected, and now it may be said that all escape of sulphuretted hydrogen has ceased.

But the victory, as Mr. Fletcher confesses, is incomplete; there is still the loss of 10 to 20 per cent. of sulphur, which gets into the atmosphere as stated above. It would be unfair to say, in consequence of this, that the Chance-Claus process is a failure; it has abated one nuisance, and recovered a large amount of valuable material hitherto lost, while it enforces the dictum that leaders in technical chemistry are never tired of uttering—viz., that the chemist of to-day should know as much about engineering as of chemical science.

The only other part of the report which calls for attention is that referring to sulphate of ammonia, 134,257 tons of which were produced in 1890, its value being 1,611,084*l*. Five-sixths of this comes from gas-works. It is all valuable material which, not so many years ago, gas-managers could not get rid of, and was a nuisance to them. Moreover, owing to the incidence of the Alkali Acts, gas-makers are compelled to recover this sulphuretted hydrogen which is associated with the ammonia in the gas-liquor, so that in many gas-works the sulphuric acid is made which is required for fixing the ammonia. This triumph again is as much due to engineering as to chemical science.

COMMENTARY.

MEDICAL PRELIMINARY EXAMINATION.—The General Medical Council has agreed upon certain alterations in the preliminary education of medical students which exclude the Preliminary and Minor examinations of the Pharmaceutical Society of Great Britain (*pro tanto*) and the Preliminary examination of the Pharmaceutical Society of Ireland (*pro tanto*). The new regulations will not come into force until January 1, 1892, after which date those con-

nected with pharmacy will understand that their pharmaceutical certificates are medically useless.

RESEARCH LABORATORY PAPERS.—Our protest against communications from the Bloomsbury Research Laboratory being made to the Chemical Society without proper acknowledgment, appears to have been appreciated in the proper quarter, for in the June number of the *Journal of the Chemical Society* the paper by Messrs. Dunstan and Dymond on "The Action of Alkalis on the Nitro-compounds of the Paraffin Series—Formation of Isoxazoles," has a heading in large capitals (an exceptional thing in the journal) which reads: "Contributions from the Research Laboratory of the Pharmaceutical Society of Great Britain." This is as it ought to be.

UNPARALLELED EXPERIENCE.—A chemist in the South of England is giving up business, and he introduces his successor in the following terms:—

DEAR SIR OR MADAM,—Mr. ———, of London, has purchased the business lately carried on by me.

Mr. ——— has been nearly half a century connected with the medical profession. His experience is almost without a parallel, having been five years apprenticed to the leading medical practice at Deal, Kent; ten years assistant to a leading medical firm at Portman Square, London, W.; and for the last twenty-two years he has had the control of a large dispensary in East London, where his experience included the treatment of about 1,000,195 cases of sickness and surgery, an attendance upon about 8,000 cases of midwifery, and the extraction of 50,000 teeth. His testimonials are of the highest order, and I have pleasure in leaving as my successor one who, I believe, will do his utmost to obtain and hold your esteem and confidence.

Mr. ——— is a member of the Pharmaceutical Society of Great Britain, and will keep a carefully selected stock of drugs and chemicals, and all other articles necessary for the demands of the neighbourhood.

QUININE AND IRON MIXTURES.—The somewhat mysterious gelatinisation which occurs in these mixtures is probably the result of the formation of quinino-ferrie chloride. This is a compound which Dr. J. Kersch, a German physician, has recently described, and which is made by taking one equivalent of pure quinine (say 324 parts), and dissolving in as much ferrie-chloride solution as represents one equivalent of the iron salt (378 parts). The resulting solution is of a deep red-brown colour. After exposure to a gentle heat for some time the liquid solidifies to a magma, which may be dried, by a gentle heat and under exclusion of light, to a hard dark-brown mass showing a resinous fracture. This quinino-ferrie chloride is amorphous, friable, hygroscopic, readily soluble in water or alcohol, less so in ether, and has a bitter, astringent taste. The mass remains unchanged if kept in well-closed bottles. The compound is said to be an excellent one, and is given internally in uterine hæmorrhage, profuse menstruation, hæmorrhage of the lungs, and the like. The dose is generally 10 drops of a 10-per-cent. solution every hour to three hours.

EDISON'S LATEST.—The Wizard of Menlo Park now appeals to the eye as well as the ear. His kinetograph is a machine combining electricity and photography, and is capable of reproducing the gestures and motions of actors as well as their voices. According to Edison's description, the kinetograph is placed on a table in front of the stage. It begins to work as soon as the curtain is raised, recording the motions of the actors at the rate of forty-six impressions per second. This is sufficient to give a continuous picture of what is happening. The photographic slips are then developed and replaced in the machine, a projecting lens is substituted for the photographic one, and the calcium light throws the whole scene on a screen. The apparatus is said to consist of a small box containing the camera, in which there is a roll of gelatine film three-quarters of an inch wide and of any length desired. The interior of the camera

is arranged in the ordinary way. The gelatine strip is unrolled from one spindle and re-rolled upon another, and there is a delicate arrangement for working the shutter continuously. As to the development of the photographs no information is at present given.

SCARCITY OF ASSISTANTS.—There has never probably been a period since the passing of the Pharmacy Act when assistants were so difficult to get as now. From various parts of the country we have reports to this effect, and it is as true of London as of the provinces. Most of the West-end pharmacists are exceptionally busy at present, and many who would be glad of extra assistance have to get along without it, while chemists in popular summer resorts find it not an easy matter to augment their staffs for the busy season. The demand in most cases is for qualified assistants, and when it is considered that less than one-half of those on the register are not in business on their own account, it is not difficult to understand that some masters must be content to do without qualified men if they cannot offer the inducements in regard to hours and remuneration which employers in large towns, especially stores, now offer. It is worth noting that at least one of the largest London establishments employing out-door assistants offer qualified men 40s. to 50s. per week, the hours being from 9 A.M. to 7 P.M., and 3 P.M. on Saturdays, without Sunday duty, overtime being paid at the rate of 10d. and 1s. per hour. This is an exceptional case, but it is not surprising that this establishment never has difficulty in keeping up the strength of its staff. The general tendency now is to shorten the hours of assistants, and to give them that leisure for recreation which modern ideas demand, and which is not denied to their friends engaged in other commercial pursuits. Where this principle is not recognised the difficulty of obtaining adequate service becomes the greater as time goes on.

RESEARCHES ON THE MANUFACTURE AND ANALYSES OF VARIOUS KINDS OF TEA.

IN a recent bulletin issued from the Imperial College at Tokyo, Komaba, Japan, is a very interesting account of some investigations into the values of various kinds of tea by Professor Y. Kozai, of which we give an abstract.

Since good tea can only be prepared from very young leaves, liberally supplied with manure, there should be some difference in the composition of the leaves of young and of old, and perhaps also of manured and unmanured plants. Researches have shown that very material alterations take place in the tea leaf—particularly in its earlier periods of growth—thus:

- The percentage of water in the leaves continually decreases from the spring up to the autumn.
- Crude protein and nitrogen-free extract regularly diminish, while crude fibre and ethereal extract increase proportionally.
- Theine diminishes gradually, while tannin increases slightly.
- Substances soluble in hot water gradually diminish up to a certain period, and then increase slowly.
- As regards the quantity of ash, there is but a slight fluctuation throughout the year, but its components undergo a remarkable alteration; thus, there are a decided diminution of potash and phosphoric acid, and a considerable enhancement of lime, magnesia, and iron; furthermore, the quantities of soda, manganese, and sulphuric acid increase, while the percentage of silica and chlorine remains nearly constant.

Whether the age of the tea plant may have some influence upon the composition of the leaves is a subject not yet experimented upon, although the opinion that older plants produce better leaves prevails among tea-planters. Hence

the practice of preferring—or, rather, selecting—the older plants for the preparation of a superior kind of tea: for instance, dew-drops. It is, however, certain that careful pruning and liberal manuring are necessary to obtain a fair crop of the leaves from the older plants.

Still another factor which exerts an influence upon the composition of tea leaves is the peculiar method of screening the plants from light for a week or two just before the time of picking. By this means a peculiar, fine aroma is said to be conferred upon the tea, so that it is very easy, according to Japanese tea-drinkers, to tell beforehand whether or not the tea they drink originated from screened plants. It is, *a priori*, certain that there should be some difference in the composition of the leaves of normally-grown and those of screened plants.

In order to solve the problem, a small plot in a large tea plantation was selected, where a most uniform shooting was observed; a part of the plot was covered with wooden frames, so that the plants within were in complete darkness, while the other part was freely exposed to the light. In this state the plants were kept for three weeks, after which time the leaves in both parts were picked, when the leaves of the screened plants were found to have been completely bleached. A partial analysis of these two specimens of leaves gave the following figures (per cent. of dry matter).

	Grown in darkness	Grown in light
Theine	4.532	3.784
Total nitrogen ..	7.835	6.945
Theine nitrogen ..	1.311	1.094

A special trial showed that there was no practical difference in the amount of tannin contained in the tea leaves, whether etiolated or green. It seems, therefore, that the chief difference in the composition of these two specimens of leaves lies in the quantities of theine contained. This difference is, however, not due to any new production of the said alkaloid in the darkened plants, but is simply caused by the formation of various organic substances, such as fibre, &c., in the leaves normally grown, and by the destruction of nitrogen-free matters by the continuous respiration in the shaded plants. It is concluded that the tea originating from darkened plants acts more strongly upon the human frame than that from the normal plants.

A large quantity of young tea leaves was next carefully collected from a part of a large tea plantation where the most uniform shooting was observed. The leaves were thoroughly mixed together and treated as follows:—

- 500 grs. were immediately dried at 85° C.
- 1,500 grs. were made into green tea.
- 1,500 grs. were manufactured into black tea.

The following table gives the percentage composition of the dry substance of these three specimens.

	Original Leaves	Green Tea	Black Tea
Crude protein	37.33	37.43	38.90
Crude fibre	10.44	10.06	10.07
Ethereal extract	6.49	5.52	5.82
Other nitrogen-free extract ..	27.86	31.43	35.39
Ash	4.97	4.92	4.93
Theine	3.30	3.20	3.30
Tannin	12.91	10.64	4.19
Soluble in hot water	50.97	53.74	47.23
Total nitrogen	5.97	5.97	6.22
Albuminoid nitrogen	4.11	3.84	4.11
Theine nitrogen	0.96	0.93	0.93
Amido nitrogen	0.91	1.13	1.16

From this it will be seen that the loss of ethereal extract is somewhat remarkable owing to a conversion of a part of the tannin into a form insoluble in ether; as a consequence, nitrogen-free extract shows a remarkable increase. The fact that the loss of ethereal extract in black tea is less than in the green indicates the formation of organic acids and other components soluble in ether during the fermentation of the leaves. Ash, too, suffers in both cases a slight loss, owing to the mechanical loss of the sap in which it is partly dissolved. The trifling loss of theine may also be attributed to the same source of loss rather than to its sublimation during firing. The destruction chiefly concerns tannin, this happen-

ing chiefly during the process of rolling and drying; and, in the case of black tea, fermentation is the most energetic agent for the destruction of tannin. It is, indeed, true that it is very prone to alterations, since even during the mere drying of tea leaves in the sun a slight but appreciable quantity of tannin is destroyed. The diminution of extractive matter in black tea is most probably owing to the conversion of large quantities of soluble tannin into insoluble phlobaphene, and also the decomposition of organic matters by the organised ferments during the fermentation of leaves, while in the case of green tea, though a fraction of tannin is decomposed, it will not suffer so far-reaching a change as in that of black tea, and the decomposition-products thus formed may be soluble in water.

From the foregoing it is evident that black tea suffers more material alterations during preparation than green, since in the former the leaves are subjected to fermentation, while the manufacture of the latter consists entirely of mere mechanical manipulations.

Export tea is always re-fired in the go-downs of the exporter. This process is resorted to in order to drive out the excessive moisture from the tea and to destroy the germs which, particularly in the presence of much moisture, would exercise an injurious action upon tea during a long voyage. Ordinary tea contains generally 10 to 11 per cent. of moisture, which is reduced to 3 to 4 per cent. by re-firing; and, as this process is conducted at a high temperature, there should be some alteration in the composition of the tea. An investigation showed that the re-firing process does not deteriorate the quality of tea, as was supposed by many, but, on the contrary, it increases the fine aroma and diminishes the astringency, while a slight loss of theine is of no practical moment. It is, however, during the process of re-firing that the shameful practice of facing tea is performed. Both black and green teas are thus generally artificially coloured or faced. But, owing to the minute quantity of the admixture used, some regard it as an admissible, or even as a legitimate, practice, indeed, facing, as generally conducted, is of no great consequence to public health—but this cannot be taken as the ground for declaring the practice legitimate or even admissible.

With regard to the preparation of green tea, different methods are adopted for different classes of tea. The principle should, however, be to extract the largest possible quantity of theine and a moderate amount of tannin without dissipating much aroma. Now, this object cannot be attained by boiling tea or by brewing it with cold water, but by subjecting it to the action of water of a certain temperature for a certain space of time, the latter two points being determined by the nature of the tea. The method employed in Japan for making tea of an extra-fine quality—viz. "*tencha*"—is to grind the leaves to powder, which is drunk with the infusion. The second method, used only for a superior tea, is to digest the leaves for about two minutes with warm water at a temperature of 50 to 60° C. The third one, for a medium tea, is to expose the leaves to the action of boiling water for about one minute. The last, which is used for making an inferior tea, is to boil the leaves with water. These methods of making tea are quite rational, since the finer the tea the higher is its solubility. In connection with this, it is interesting to know that Prof. Eder determined what and how much of the constituents of Chinese tea are soluble in water, and the results show that the three active constituents of tea—theine, tannin, and volatile oil—are completely dissolved by water, whilst only 42.5 per cent. of ash goes into solution, amongst the ingredients of which potash and phosphoric acid predominate.

The following table gives the percentage composition of a medium class of Japanese tea:—

In 100 Parts of Dry Substance:—

Crude protein	26.87
„ fibre	10.89
Ethereal extract	15.34
Other nitrogen-free extract	22.92
Ash	6.23
Theine	2.03
Tannin	17.65
Soluble in hot water	33.89
Total nitrogen	4.30
Non albuminous nitrogen	0.96

Comparing these figures with those of the best-quality tea, we find a decided deficiency of crude protein in the organic substance, and a consequent less solubility of the tea, with a corresponding increase in the amount of ethereal and nitrogen-free extract, and an augmented proportion of ash.

Practical Notes and Formulae.

PERFUMED NAPHTHALIN-CAMPHOR.

THIS is used as a moth-preventive. According to Dietrich, its composition is as follows:—

Naphthallin	9 oz.
Camphor	3 „
Coumarin	3 grains
Nerolin	2 „
Nitrobenzol	15 drops

Melt the solids by a gentle heat, and add the perfumes. While liquid pour into suitable moulds.

LASSAR'S HAIR POMADE.

	Parts
Pilocarpine	2
Quinine hydrochlorate	4
Sulphur, precipitated	10
Balsam of Peru	20
Cx marrow, to make	100

BRONZING FLUID.

Red aniline	50 grs.
Violet aniline	50 „
Alcohol	2 oz.
Benzoic acid	50 grs.

Dissolve the aniline in the alcohol, in a bottle, by the aid of water-bath, add the benzoic acid, boil in the water-bath 5 or 10 minutes, until the greenish colour of the liquid has changed to a light brownish bronze. This is applied to leather, metal, wood, or other surfaces.

Western Druggist.

DRESSING FOR TAN SHOES.

	Parts
Bees'-wax	1
Oil of turpentine	4

BOTTLE-WAX.

THE following recipe is recommended by Scheirer:—

	Parts
Burgundy pitch	50
Turpentine	25
Colophony	100

Heat the pitch until all the water is driven off, then add the turpentine and colophony, and when the whole is liquid add a mixture of the following in fine powder:—

	Parts
Chalk	50
Carbonate of magnesla	5
Armenian bole	50

Mix thoroughly.

STRAWBERRY POMADE.

	Oz.
Fresh strawberries	4
Cocoon oil	18
Almond oil	9
White wax	3

Melt the last three ingredients on a water-bath and digest the strawberries in the mixture for at least an hour, at a heat which just keeps the mixture melted. Then heat to 100° C. to drive off moisture; add a sufficiency of alkali to colour (or the almond oil may be coloured with alkanet root); strain, and perfume with 10 drops of otto of rose.

“A NEW DIEHL.—Rice as reporter of pharmacy.” We give the *Druggists' Circular* credit for this. Mr. Louis Diehl was editor of the American Pharmaceutical Association's proceedings. Dr. Rice has succeeded him.

BRITISH AND FOREIGN CONSULS' REPORTS.

ECUADOR.

Drug Exports. The exports of cinchona bark from Guayaquil in 1889 were 1,172 quintals, value 3,516*l.*, and 2,396 quintals, value 7,188*l.*, in 1890. Of condurango 445 quintals, worth 445*l.*, were exported in 1890.

FRANCE.

The Merchandise Marks Act. There is no change to report in connection with British trade at Havre, nor, with the prospect of a higher tariff on all manufactured articles, is there any chance of England doing a larger business after 1891. The Merchandise Marks Act continues to be applied with severity by the English customs to goods sent to England in transit for foreign countries, especially with those going to the United States, and Britain is accused of wanting to monopolise the English language. Among other cases brought forward is one of 67 casks of earthenware tiles, manufactured at Creil, for a firm at New York, and bearing the words, burnt in, "Universal Wall Tiles Company." They were sent to Southampton for transshipment by one of the National Line steamers, and were stopped by the customs, who imposed a fine of 10*l.*, and required the removal of the words—which was impossible—before releasing the goods. Finally, the casks were allowed to be forwarded and the fine was remitted, but permission for future transshipments of the same kind was refused. The result is that the goods, instead of being sent in British, are carried in French and German, vessels.

GERMANY.

Preserves. Two years ago, the Hohenlohe preserve-factory was inaugurated in the town of Gerabronn. At this factory, not only are soups made, but, also, vegetables are dried according to the most recent scientific recipes, whereby the watery contents are evaporated and the characteristic flavour of the vegetables developed rather than deteriorated.

A New Building Material. A new artificial building material, known as "xyolithe," which is said to possess valuable qualities, has been introduced by a firm in the neighbourhood of Dresden. Xyolithe is a mixture of sawdust and certain chemicals. It is formed into plates under a pressure of 2,500,000 kilogrammes per square metre. The plates are 1 metre square and from 6 to 25 millimetres thick. It is said to be practically fireproof. A 7-centimetre cube of the material was exposed to the action of a coal fire in the heating-chamber of the Royal Saxon experiment-station for five hours without taking fire or the internal structure being impaired, though it became red-hot. A valuable feature of the new building material is that it is exceedingly light. A number of houses of this material have been erected on the West Coast of Africa.

GREECE.

British v. Foreign Goods. Although the fact of the customs duties in Greece being levied by weight, and not ad valorem, has a tendency to increase the consumption of the better class of merchandise (as the duty on a high-priced article is not such a large percentage as on a lower), still the enormous duties foster the sale of the lower and cheaper priced qualities. In fact, the average Greek buyer looks first to price, and only secondly, if at all, to quality; consequently British merchandise in many cases is run very hard, and often beaten, by the German and Austrian. These countries adapt themselves more to the taste and fancy of the buyer, and produce the article he wants, rather than to endeavour, as is often the case with the English manufacturers, to force him to consume the article exactly as they produce it.

MOROCCO.

Beeswax. The quantity exported from Tangier, Tetuan, Casa Blanca, Mazagan, Safi, and Mogador in 1889-90 amounted to \$705,845.

Olive Oil. The exports of olive oil from Morocco in 1889-90 show a large increase over those of 1888-90. In the latter year 1,946 tons were exported (to

the value of \$281,460) to England and France, and \$1,500 worth went to Spain.

The principal gums shipped from Morocco in *Acacia Gums*, 1889-90 were brown gum, Senegal gum, and sandarach. The joint value of all these was only \$48,175, the roads leading to the sea-ports from the places of production being unsafe for conducting goods.

Orris Root. The quantities shipped of this article are exceedingly small at present, though formerly large quantities were gathered for shipment abroad. This is because the present tariff of duties on produce which is brought to the sea-ports so hampers all the low-priced articles as to render speculation for shipment almost impracticable. Up to a few years ago orris could be bought at about \$2.50 f.o.b., but lately, owing to the additional taxes and duties, it costs nearly twice as much. The same reasons account for the reduced export of citrons, esparto, euphorbium, orchella, horns, peas, rose leaves, sesame, and walnuts.

ITALY.

Trade with U.K. The following figures show the trade between Italy and the United Kingdom in pharmaceutical articles during the last two years.

Imports.		1890	1889
Acids	cwt.	8,640	6,130
Potash and caustic soda ..	"	136,016	134,908
Alkaloids	lbs.	3,726	2,992
Oxides	cwt.	17,344	19,310
Carbonates	"	59,766	92,770
Chlorides	"	76,482	71,240
Nitrates	"	40,554	20,744
Sulphates	"	258,442	126,910
Other chemicals	"	25,698	25,933
Bark	"	9,696	9,382
Gums and resins	"	21,444	29,018
Soap	"	9,514	8,842

Exports.		1890	1889
Olive oil	cwt.	131,234	215,156
Orange essences	lbs.	229,754	249,196
Boric acid	cwt.	34,050	26,694
Alkaloids	lbs.	5,430	8,450
Tartar and lees of wine ..	cwt.	101,782	88,086
Orange and lemon juices ..	"	42,385	42,952
Liquorice, aloes, &c. ..	"	12,884	9,810
Soap	"	19,018	25,656

Olive Oil. Turning to the export of olive oil, the small amount lately sent out of the country is principally due to the deficient harvests of 1889-90, as the export to France varied but little in the last two years. Olive oil entering France from Italy is now subject to a differential duty of 15*f.* per quintal; but, taking the average cost of production at 100*f.*, and at 140*f.* for the finest qualities, such a duty, although nearly quadrupling that imposed under the general tariff, can scarcely be considered prohibitive, as is the case with the duty on wine.

The export of olive oil to France, which in 1886 touched 30 per cent. of the whole amount exported, diminished in 1890 to 23 per cent.

The finer oils made in Liguria and Lunca still maintain their superiority, and, considering how much more extensively the olive is now cultivated in Turkey, Greece, the Ionian Islands, Tunis, &c., Italy may be fairly satisfied with her export—in good years averaging some 600,000 quintals.

TURKEY IN ASIA.

Liquorice. In ordinary seasons the digging for liquorice-root in Asia Minor commences in the middle of October, but in 1890 it was found impossible to begin so early, owing to the badness of the soil in the plains of Sokia and Nazli; lack of water, moreover, rendered the extraction of the juice still more difficult at first. A final impediment to the work consisted in the monopolisation of the root supply, as well as the manufacture of extract, into the hands of one single firm, who lately have declined to sell any root whatever, and demanded high prices for the extract. The finest quality of the latter is marked RX, the next best VB, and the third quality VG.



Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, June 11.

ANOTHER quiet week has to be recorded in the drug and chemical markets, and there are comparatively few alterations calling for any comment. In drugs there has been a more or less distinct advance in ipecacuanha, Jamaica honey and beeswax, American oil of peppermint, fine cardamoms, and ergot of rye. On the other hand, there has been a falling off in the value of raw camphor, gum benzoin, jalap, musk, rhubarb and vanilla. In the department of chemicals the alterations are very few. Tartaric acid, refined camphor, cream of tartar and quinine have declined in value. Lower figures must also be recorded in soda crystals, raw antimony, shellac, Cochin and Jamaica gingers, tamarinds and pepper.

NEPAUL ACONITE ROOT.—At to-day's auctions a parcel of 77 bags aconite root from Nepaul was offered. This root (from *Aconitum ferox*) was formerly a well-known article upon our markets, but for about twenty years none has been imported, although the Eastern Himalayas and the South-Western Provinces of China are well known to be in a position to furnish large quantities of this and other medicinal roots if the trade should prove a remunerative one. The alkaloid of the Nepaul root is much more powerful in its action than that of the root of *A. Napellus*; and the operatives who were employed in grinding the root when it was still a market article suffered severe discomfort. The principal use of the Nepaul root is in the manufacture of liniment. The root is much bolder and heavier than other aconites, and much darker in colour.

THE GERMAN ALKALI INDUSTRY.—The managing director of the German alkali works, "Rhenania," in an article in a recent German chemical journal, gives an interesting account of the German alkali industry since 1873. In that year the duties on soda salts were considerably reduced, and immediately the prosperity of the German alkali industry began to decline. This decay continued until 1879, when the tariff was revised in a protective sense. The effects of the increased duties made themselves felt almost at once. In 1878 the German soda production amounted to about 42,500 tons, while about 27,500 tons were imported from abroad. Since 1878, however, the total production has risen to 195,000 tons, of which 28,450 were exported. Germany now exports more than she imports of all the principal soda salts, except bicarbonate of soda. In 1884, five years after the adoption of protective legislation, soda ash was the first article to show an excess of exports over imports; soda crystals followed in 1886, and caustic soda in 1890.

DRUGS FROM GERMAN NEW GUINEA.—The German part of the island of New Guinea, or "Kaiser Wilhelmsland," as the Germans call it, yields certain drugs for which an outlet is likely to be sought upon the European markets before long—several of its medicinal products, in fact, have already been introduced into commerce in this country and on the Continent. The long nutmegs obtained from the "*Myristica argentea Warb.*" and locally known as "pala

Papua," are the usual currency of certain parts of the country, and form, along with Massoi bark, the staple goods used by the natives in their barter with white traders. The root of *Derris elliptica*, Benth, is used as fish-poison, while *Euphorbia pilulifera* is a common weed which occurs as plentifully as it does throughout other parts of Polynesia and Australia. Although the natives know the tobacco-plant well, and were already cultivating it to some small extent before the arrival of the white man, yet, singularly enough, they give the name of "tabac" to the fruit of *Carica Papaya*, a small-podded variety of capsicum longum occurring wild. *Anodendron Lambe*, Warb, is likely to become one of the most valuable products of German Polynesia. It is a new variety of rubber-yielding climber, which occurs largely in the New Lauenburg archipelago, where its hard, polished fibres are much used by the natives. The capsules are from four to five inches long, slowly tapering towards the end, blackish externally and straw-coloured internally. The seeds are dark brown, elliptical in shape, flat, usually concave, broadest in the centre, with a flat base and with hooked point, from which springs a tuft of silky hair about two inches in length. Both capsules and fruit closely resemble those of the strophanthus.

THE NEW FRENCH TARIFF ON SOAPS.—Common and toilet soaps are among the articles upon which the customs commission of the French Chamber of Deputies proposes to increase the duties very considerably. At present common soaps pay 6f. per 100 kilos. It is proposed to increase this tax to 13f. for the minimum, and 17f. for the general tariff. The minimum tariff on perfumery soaps is to be raised from 8f. to 20f., and the general tariff from 12f. to 26f. The commission justify their recommendations upon the ground that the internal taxes upon many of the ingredients used in soap-making have increased considerably since the fixing of the last tariff. Transparent soaps are to be placed in a separate category and taxed at 60f. to 70f. per 100 kilos., because, the commission argues, it is impossible to ascertain by chemical means whether alcohol has or has not been used in their manufacture, while foreign manufacturers, usually by simply declaring that no alcohol has been used, contrive to pass them at the ordinary duty upon common soaps. On the other hand, if alcohol has been used, then the foreign alcoholic transparent soap has an enormous advantage over the home made, as the French manufacturer pays an excise of 1-56f. per litre on alcohols, equal to from 47f. to 156f. per 100 kilos. of soap, upon which no drawback is allowed.

THE SPANISH DRUG-TRADE.—The declared value of the imports of drugs and chemical products into Spain during the first four months of 1891 was 19,194,032 ptas., against 19,039,215 ptas. and 15,095,080 ptas. respectively in the corresponding periods of 1890 and 1889. The exports of some of the principal Spanish products of pharmaceutical interest have been as follows:—

	January-April		
	1889	1890	1891
	Kilos.	Kilos.	Kilos.
Quicksilver ..	1,266,745	659,347	1,205,025
Liquerice, in pipe	637,361	625,754	547,371
" paste	162,082	278,102	249,045
Cream of tartar ..	151,571	129,322	180,053
Anise ..	212,306	205,576	249,976
Olive oil ..	12,210,094	5,695,487	4,543,187
Saffron ...	9,839	12,157	14,930

SERVIAN PETROLEUM.—The existence of petroleum deposits in Servia has long been known, and a company, to be called the Servian Oil Syndicate (Limited) is now being floated in London with a capital of 75,000*l.* to work them. The concessions owned by the concern cover shale deposits at Kralievats and Now Kralievats, which are claimed to be practically inexhaustible, and to yield a mineral of exceptionally valuable quality. Both these coal seams have already been worked for some years past. The output, it is said, can

be raised within a few months to 100 tons a day, and to considerably more as the workings progress. The shale seams are sufficiently opened out to admit of a supply of 200 tons per day by the time the works are completed. The coal is expected to serve not only as a cheap fuel for the supply of the oil works, but a profitable and growing trade is anticipated for it. There is also a good market in Serbia for briquettes, which can be made from the small coal and screenings. This Alexinatz shale in all its properties very closely resembles Scotch shale. It is, however, much richer than the latter (the yield in crude oil being about 50 per cent. more than from the Scotch material), and has for this reason, and because of its higher percentage of paraffin wax contained in the crude oil, now been pronounced superior to the Scotch shale by Scotch shale experts, who have been engaged in the chemical and practical investigation of the subject. The Servian Government has agreed to exempt fuel oils and gas oils from the royalty tax. The Syndicate hope that they will thus be enabled to supply oil for gas-making at rates which will give oil gas in Serbia a great advantage in cost over coal gas. No town in Serbia is as yet lighted with gas. The cost of the plant requisite for oil gas works, as compared with coal gas works, is about one-sixth.

BRITISH-AUSTRALASIAN TRADE.—In an address on inter-British trade, read at the Royal Colonial Institute recently Colonel Howard Vincent, M.P., thus reviewed the trade connections existing between this country and the Colonies of Australasia:—The total trade of Australasia is reckoned at 122,800,000*l.*, or 33*l.* 9*s.* 9*d.* per inhabitant—nearly double that at home. Of the external trade by far the larger portion is carried on with the Empire, viz., 63,000,000*l.* out of a total of 74,000,000*l.* Of this, the trade with the mother country amounts to nearly 59,000,000*l.*, the imports being only 1,000,000*l.* in excess of the exports, as against 25,500,000*l.* in 1861. Australasian imports from our commercial rivals have doubled since 1861, those of Germany having increased ten times, and of France four times, while the direct exports to foreign countries have increased six-fold. This is well illustrated by the exports of wool direct to Continental ports, which have increased from 172,000*l.* in 1881 to 1,556,000*l.* in 1888. In 1888 there were 18,611 vessels, of 4,500,000 tons burden, entered and cleared at Australasian ports, compared to 268 vessels, of 147,000 tons, in 1822—a daily increase of 40,038 tons. The inter-colonial trade of Australasia is estimated at 49,000,000*l.*, compared to 16,000,000*l.* twenty-seven years before. Of the total Australasian National Debt, mainly to the United Kingdom, of 170,000,000*l.*, nearly 100,000,000*l.* has been spent upon railways, 13,000,000*l.* upon water-supply, 5,500,000*l.* upon immigration, and 48,000,000*l.* upon other services. Although the debt is large compared to the population, its security would appear to be unimpeachable, considering that the assets of the banks in Australasia are 155,000,000*l.*, or 45,000,000*l.* in excess of their liabilities, while the public income and private estate per head of the population are far in excess of any other country, and the national wealth is computed at a thousand millions. Wool, the main article of export, produces about 20,000,000*l.* a year, and of this an enormous proportion comes to the mother country. It is calculated that 373,000,000*l.* is invested in Australasian pastoral properties, and that the annual income amounts to 35,000,000*l.*

THE BROMINE COMPACT.—About two years ago, subsequent to an attempt on the part of the American bromine trade to introduce their goods on the European market, an understanding was established between the Continental and American bromine syndicates, whereby each party agreed not to interfere with the markets of the other, and since then things have gone smoothly enough. During the last few days, however, rumours have been current of an impending change in the market for bromine and its products. It is hinted that some of the heads of the American syndicate, having realised the precarious position of their industry, have quietly sold their interest to less-knowing or more hazardous capitalists, whose entrance upon the scene has been marked by an attempt to sound European agents upon the possibility of recommending bromine consignments

to Europe, and that the American convention is, to all intents and purposes, moribund. Anxious to hear something more definite about these rumours, our representative sought out Mr. Zimmerman, the agent for the German syndicate. That gentleman told us that there was no probability that the American producers would ever again attempt to interfere seriously with the European markets, as their previous attempts in this direction had taught them that such interference would be fatal to the American bromine industry as a whole. The Stassfurt bromine producers are able, if necessary, to sell their produce for less than half the actual cost of the American bromine, and, as a matter of fact, two years ago, about ten tons of German bromide of potassium were consigned to New York, and sold there at 1*s.* per lb. duty paid, meaning 9*d.* per lb. net. This was a preliminary act of retaliation; but, had it been necessary, the Germans would have been prepared to supply the whole of the American requirements at that rate, and less. But that was not necessary. The chief representatives of the American interest came over to London at once, and appealed for an arrangement which would permit the American makers to continue working, and terms of peace were granted by the Germans to their American friends. But should the latter have forgotten their lesson, they will have to learn it again, and they would probably find that the German syndicate would not be so lenient now, as it has been formerly, and the renewal of the compact on the old lines would be extremely unlikely.

OUR FOREIGN TRADE IN MAY.—The Board of Trade returns for May have given a rude check to the almost uninterrupted tale of prosperity of the last two years. As compared with May, 1890 (the Easter holidays having occurred in both months), there is an increase in our imports from 33,341,000*l.* to 34,377,698*l.*, or about 3 per cent.; but against this must be placed a decrease in exports of British goods from 22,940,779*l.* to 19,744,473*l.*, or about 14 per cent., and in foreign produce from 6,476,915*l.* to 5,447,331*l.*, or about 16 per cent. In the exports the decline is largest in textiles, but all departments show a falling off, that of chemicals and medicinal preparations alone from 828,279*l.* to 742,054*l.* Our imports of chemicals and dyestuffs stand at 678,759*l.* in May, 1891, against 649,493*l.* in May, 1890; those of oils at 556,942*l.* and 460,957*l.* respectively. Our exports of alkali and bleaching-materials again show an increase in value, and the decline is made up entirely of medicines and drugs proper. The following figures refer to the imports and exports of some of the principal drugs and dysaltries:—

	Imports			Exports		
	1891	1890	1889	1891	1890	1889
Cinchona	cwts. 8,801 lbs. 108	cwts. 8,830 lbs. 108	cwts. 11,244 lbs. 136	cwts. 10,967 lbs. 135	cwts. 12,250 lbs. 148	cwts. 10,420 lbs. 126
Quicksilver	cwts. 547,600	cwts. 934,631	cwts. 139,252	cwts. 381,496	cwts. 562,360	cwts. 472,420
Gum arabic	cwts. 4,879	cwts. 6,059	cwts. 5,880	cwts. 5,828	cwts. 4,319	cwts. 3,197
Shellac and sticklac	cwts. 8,038	cwts. 9,212	cwts. 6,758	cwts. 9,816	cwts. 6,984	cwts. 3,901

ACID (CITRIC).—The market is in a stagnant condition, with sellers at 1*s.* 8*d.* per lb., but no buyers at that figure. Juice is quoted at 25*l.* from Sicily. The following figures show the imports of concentrated juices into this country:—

	1888	1889	1890	1891
In May	Pipes 334	Pipes 466	Pipes 328	Pipes 597
First five months ..	2,583	3,157	2,854	1,236

ACID (TARTARIC).—Quiet, and slightly easier since last week, at 1*s.* 2*d.* to 1*s.* 2½*d.*, according to brand.

ACONITE.—Thirty bags small Japanese were bought in at 25*s.* per cwt., and offer of 18*s.* being refused; 77 one-cwt. bags hold Nepaul aconite, some of them damaged, were bought in without mention of price.

ALOES.—*Cape* aloes are firmly held, but the market is dull. Of 52 packages offered at auction, 14 sold at 30s. per cwt. for bright livery Natal, and from 15s. to 13s. for common drossy and very stony Cape. A parcel of fine hepatic Natal aloes is in the market, but the owner is said to require 50s. for it, which at present precludes business. For fine white Cape aloes, offers of 21s. to 22s. per cwt. were refused. Of *Curacao* aloes the supply was very moderate, 176 packages being shown, of which 143 sold at very low prices—11s. 6d. to 15s. for dark to fair Capey, and down to 6s. for very common frothy *Curacaos*. Of *East Indian* aloes there was a rather large supply, but the quality of most lots was unusually low: 10 packages *Zanzibars* (*via* Aden) fair colour, but very soft, in skins, sold without reserve—67s. for good quality, down to 45s. for fair, mixed with leaves and skin. Fifteen kegs black *Mocha* aloes, from Bombay, were bought in; and so was a parcel of 7 cases, in skins, of black rubbish, for which, even at 10s. per cwt., there was no response.

AMBERGRIS.—Two tins of fine ambergris, about $\frac{2}{3}$ pale and $\frac{1}{3}$ dark in colour, so-called "soapy" flavour, were shown to-day, and bought in at 180s. per oz.

ANISE.—Of genuine star-anise 42 cases, all rather broken and partly damaged, were offered, and bought in at 100s. per cwt., bids of 92s. 6d. per cwt. being refused.

ANNATTO.—Dull of sale. For 42 bags West Indian seeds, of good bright colour, 2 $\frac{1}{2}$ d. per lb. was paid, while 10 packages very common and almost colourless seed from Ceylon sold at $\frac{1}{2}$ d. to 1d. per lb.

ANTIMONY.—Declining in price. Twenty cases good crude Japanese antimony sold to-day at 30l. per ton, without reserve. Antimonial preparations will follow the decline.

ARAROA.—Eighteen cases, forming part of a parcel which has been upon the market for some time, were again offered to-day and bought in at 2s. 3d. per lb. for fair quality. The article moves off slowly.

ARECA NUT.—Five bags realised 30s. per cwt.

BALSAM (CANADA).—For five kegs of good bright quality offered to-day, a bid of 1s. per lb. was refused—1s. 3d. per lb. being named as the price.

BALSAM (COPAIBA).—Firmly held. Seven casks thick cloudy yellow Maranhão were bought in at 2s. 6d. per lb.; clear pale ditto, at 2s. 4d. per lb.

BALSAM (PERU).—The market is firm. Three cases unworked balsam are reported sold at 5s. 6d. per lb.; for another lot an offer of 5s. 1d. per lb. was refused.

BUCHU LEAVES remain scarce. None were offered at to-day's auctions.

CALUMBA.—Of 65 bags were offered to-day and none sold. The prices named show no variety, good bold yellow and grey mixed being held at 35s. per cwt.

CAMPHOR (CRUDE).—The market is decidedly easier, but we have not heard of any transactions on the spot since our last report. At to-day's auctions 135 cases good to fine China camphor were offered, and bought in at 155s. to 160s. per cwt. The market is very uncertain, and it is quite possible that a bid of 150s. per cwt. would have been accepted.

CAMPHOR (REFINED).—Weaker and obtainable easily at 1s. 9d. on the spot, while there are sellers, but no buyers, at 1s. 8 $\frac{1}{2}$ d. for forward delivery.

CANNABIS INDICA.—Twenty-three packages fair grey tops, dusty, but not stalky, were shown; and four of these sold at 5d. per lb., while for sweepings 2 $\frac{1}{2}$ d. was paid.

CANTHARIDES.—Of 4 casks good bright *Russian* one sold at 3s. 6d. per lb. Thirteen cases *Chinese* cantharides were bought in at 1s. 2d. per lb., a bid of 10d. being apparently refused. When the last mail left Hong Kong, on April 30, the price of cantharides was coming down somewhat, and about 10 piculs were offering at \$50 per picul.

CARDAMOMS.—The supply was moderate, consisting of about 150 packages, of which 84 sold at very full prices, with an advance of about 3d. on a few very fine lots. *Ceylon Mysore*: Fine heavy medium to bold plump pale, 4s. 3d.; medium size, 3s. 11d.; small to medium, 3s. 4d. to 2s. 9d.; small to medium yellowish round, 1s. 11d.; long mixed,

1s. 6d.; brown, partly split, medium to bold, 1s. 5d.; small to medium, very brown, 1s. 2d. to 1s. 4d. per lb. *Malabar*: Small to medium full plump, but grey in colour, 1s. 9d.; small size, 1s. 4d.; small to medium brown, 1s. 4d.; medium to bold grey, 1s. 10d. per lb.; small greenish, thin *Aleppy*, 8d. per lb. *Seed*: Flat; there was a very good competition at higher prices, 1s. 11d. to 2s. per lb.

CHINA ROOT.—The Hong Kong market had advanced to \$3.75 per picul for this drug on April 30.

CINCHONA.—Of Crown bark, only a small quantity was offered, and sales are not of any importance: 22 packages very thin, but fair, *Bolivian* quills sold at 6 $\frac{1}{2}$ d. to 7 $\frac{1}{2}$ d.; good bright *Maracaibo* at 5 $\frac{1}{2}$ d.; damaged at 2d. and 4 $\frac{1}{2}$ d.; and 30 packages bold, partly quilly, rather dark *Carthagena*, imported from Hamburg, and offered without reserve at from 3 $\frac{1}{2}$ d., rising to 4d. per lb. The shipments of cinchona from British India since the commencement of the year have been about double of the Ceylon exports, but the Indian season is now nearly over. The admitted scarcity of tonnage in Ceylon may account to some extent for the discrepancy. The following figures approximately show the shipments of bark from the island during the first five months of the year:—

Year ..	1887	1888	1889	1890	1891
Lbs. ..	5,209,539	4,936,670	4,297,290	3,517,938	2,200,000

CIVET.—Five horns were shown, and 6s. 6d. per oz. is the price named.

COCA LEAVES.—At to-day's auctions 1 bale of sound Ceylon leaves, imported *via* Madras, good strong rather dark leaves of Huanuco character sold at 8 $\frac{1}{2}$ d. per lb. Another parcel of 8 bales thin brown leaves is held for 6d. per lb. There has just been a fresh arrival of 15 cases (weighing only about 225 lbs. in the aggregate) of coca leaves from Ceylon. The leaves are well cured, but rather dark, of decided Huanuco character, and well packed in tea lead.

COCAINE.—Messrs. Bohringer & Sons report a very active demand, and say:—"The latest cable advices of the last few days from South America announce a fresh rise; we learn further from Hamburg that one of the makers of crude cocaine is about to suspend the manufacture, owing to lack of raw material. There exist in Hamburg only small lots of crude cocaine that are held at 18s. to 19s. per oz."

COCCULUS INDICUS.—Another parcel of 300 bags was shown to-day, and is held for 11s. per cwt.

CODEIA.—Very scarce and advancing in value. The nearest price is now 15s. per oz. A strong demand from the United States is partly the cause of the advance.

COLOCYNTH.—Good pale partly-broken Turkey apple is held from 11s. to 1s. per lb., and one lot of seven cases rather broken sold at 10 $\frac{3}{4}$ d.

CREAM OF TARTAR.—Still falling in value, and now obtainable at 95s. for best white French crystals. German powder is offering at 96s. to 97s.

CUBEBS.—Slow of sale at 10l. nominally for fair rather small shrivelled and somewhat stalky berries.

CUTTLE-FISH.—Fifty cases medium to very bold good white, from Bombay, sold at 3 $\frac{1}{2}$ d. per lb.

DRAGONS' BLOOD.—For 6 cases soft medium good colour 9l. per cwt. is the price asked.

ERGOT OF RYE.—At to-day's auctions, 6 packages of good Russian ergot sold at the high price of 1s. 6d. per lb., and for rather small Spanish the same figure is asked. Some rather dirty Russian ergot is being offered privately at 1s. 5d. per lb., c.i.f. terms.

GALANGAL.—Twenty-one bags sold at 14s. per cwt.

GALLS (CHINA).—Mail reports from Hong Kong, dated April 30, state that the price of galls there has advanced to \$20 per picul, at which figure the stock of 200 piculs would be available.

GAMBOGE is now in very large supply, no less than 45 cases, mostly ricey Saigon, being offered at to-day's sales. Few transactions, however, resulted. Fine pipes of good colour, but partly blocky, were bought in at 13l. 10s. per cwt.;

dark fractured ricey pipe and blocky pieces, at 11l. to 12l. one lot of dull lump sold at 10l. 7s. 6d. per cwt.

GUM ARABIC.—At last Thursday's auctions a somewhat moderate supply of Arabic gums of all varieties was brought forward. It was, however, more than sufficient to meet the demand, and only 632 packages, out of 2,633 offered, found buyers. Ghatti realised an advance of 1s. to 2s. on the last auction rates, but did not quite come up to the prices which had been paid for it privately. Good pale to selected drop sold for 45s. to 53s. 6d.; fair to fair pale and amber at 27s. 6d. to 34s. 6d. per cwt.; Cawnpore Amrad steady at 37s. to 50s. for fair yellow and brown to pale frosted; Kurrachee gums declined between 2s. 6d. to 5s. per cwt., good to selected pale drop selling at 77s. 6d. to 93s., small pale drop at 70s., pale and red mixed to good bright amber at 50s. to 73s. per cwt.; small and dusty to good bold clean siftings at 18s. 6d. to 66s. per cwt. Bombay gums also suffered a decline of about 2s. 6d. per cwt., pale to red olibanum scented drop selling at 38s. to 40s., clean siftings at 14s. to 18s. 6d. per cwt. Cape gum was in good supply at to-day's auctions, and the greater part of what was offered (19 out of 21 packages) sold, with good competition, at dearer prices for the best lots. Small to medium pale drop, partly dusty, realised 132s. 6d.; bold grey drop and dust, 77s. 6d. to 80s.; small to medium grey drop and dust, 67s. 6d. down to 55s.; pale siftings, 39s.; dark pickings, 29s. to 31s. per cwt. For a parcel of fine even small white picked gum, 10l. 12s. 6d. per cwt. is asked. Two bales good Soudan sorts were bought in at 8l. 10s. per cwt. Of Australian gum, good frosted drop was bought in at 47s. per cwt., an offer of 42s. per cwt. being refused.

GUM BENZOIN.—Still in large supply, especially as regards Sumatra gum, for which, however, the demand is very slack. At to-day's sales 38 cases of this variety sold at 7l. to 7l. 10s. for good bright almondy centres, and 6l. 2s. 6d. to 6l. 5d. for rather dull and very false packed; these figures showing a decline of about 5s. per cwt. Of 13 cases Siam gum 7 sold—small to medium almondy block at 11l. 10s., fair blocky seed at 87s. 6d. to 90s. per cwt. Twenty-two cases very low woody Palembang sold at 5s. per cwt.

GUM KINO.—Four cases good bright *East Indian* sold for 50s. per cwt. to-day, which is a considerable advance on the last price, and some liquid kino was disposed of at 10s. per cwt.

GUM MYRRH is offering plentifully, but the prices show no improvement whatever. Of 55 packages offered to-day 22 sold at 6l. 17s. 6d. for fair palish picked, 75s. for good bright sorts, 47s. 6d. for pickings, 65s. for clean coarse siftings, and 36s. for small siftings.

HONEY.—Of new *Jamaica* honey nearly 100 packages were offered to-day, and mostly sold at full prices to a slight advance of about 6d. to 1s. per cwt., fine bright liquid amber at 35s. to 37s., brown and red ditto at 30s. to 33s. 6d., dark from 28s. down to 25s. per cwt., 2 casks blackish liquid from *Trinidad* sold at 27s. per cwt. Of *New Zealand* honey 74 packages were offered, but all bought in; good sweet thick yellow honey in two $\frac{1}{2}$ cwt. tins per case at 40s. per cwt.

INDIGO.—The prospects of the indigo crop in Lower Bengal are described as satisfactory by a Calcutta correspondent, writing on May 20. Rains have considerably benefited the plants, but still more moisture would be welcome. In Benares, the North-West Provinces, and the Behar prospects are also favourable, but, generally speaking, rain is still much wanted.

IPECACUANHA.—Of 46 serons offered 30 were sold to-day at an advance of about 3d. per lb.; sound root, woody and dusty, selling at 7s. 4d. to 7s. 5d.; good to stout bright at 7s. 6d. to 7s. 9d.; fine thick but slightly-damaged realised 7s. 10d., and for other damaged parcels from 7s. 9d. down to 7s. 4d. per lb. was paid.

JABORANDI LEAVES.—For two bales fair stalky an offer of 7d. per lb. was refused.

JALAP.—Rather easier; 2 bales fair small to medium *Vera Cruz* sold at 1s. per lb.; and for damaged ditto, part very mouldy, from 10 $\frac{3}{4}$ d. to 9 $\frac{3}{4}$ d. was accepted.

KAMALA.—Two cases were shown, and the holders would now be willing to accept 8d. per lb.

KOLA.—Of 24 packages offered in sale, 13 sold at 6d. to 7d. for good dried *West Indian*; and 2d. for ordinary wormy and badly cured.

KOUSSO is exceedingly scarce, especially for the better qualities.

MORPHIA.—Very sluggish at 4s. per oz.

MUSK.—Very flat, and the few sales made show a tendency to somewhat easier prices. Of *Tonquin* pod musk, first pile, everything was bought in at 80s., for thin grey and blue skin, small to bold pods, well trimmed and fairly dry. For a caddy of rather damp small to bold thin skin, third pile, an offer of 50s. was refused, and another offer of 24s. 6d. was declined for common ragged dark and damp usual skin, 1 tin third-pile pods, unsightly, fairly dry usual skin, realised 23s. per oz.

MUSK SEED.—Seven bags *West Indian* were bought in at 5d. per lb.

NUX VOMICA.—On May 20 the Calcutta stock, with [a] lifeless market, was about 1,000 mannds.

OIL (CASTOR).—Forty cases fine pale Calcutta oil are held for 4 $\frac{1}{2}$ d. per lb.; and an offer of 4 $\frac{3}{4}$ d. per lb. was refused. For 3 casks yellow Madras oil, 3 $\frac{1}{2}$ d. per lb. was paid.

OILS (ESSENTIAL).—American oil of *Peppermint* has recovered a little, and is now worth at least 12s. 6d. per lb. for H.G.H.—in fact, it is said to be doubted whether any could still be procured at that price. In *Otto of rose* business is reported almost suspending, pending the arrival of definite information with regard to the new crop. *Lemon* and *Bergamot* oils have again advanced in Italy, and it is thought that prices are likely to remain at least at their present level during the summer season. *Citronella* oil was held for 1 $\frac{1}{8}$ d. per oz. in sale to day, and Australian oil of *Sandal wood* at 12s. 6d. per lb. Of *Lemongrass* oil 10 cases from Cochin sold at 1 $\frac{3}{4}$ d. per oz., while 9 cases *Cajuput* were disposed of at the apparently low price of 2s. 11d. to 3s. per bottle; another lot, however, is held at 3s. 8d. per bottle.

OPIUM.—The London market is very quiet, but some little business is reported to have taken place in soft shipping kinds at the comparatively high price of 12s. to 12s. 3d. per lb. Persian is rather easier, but without business. The first new opium, consisting of 3 baskets from Eniqueul and Alascheiz, arrived upon the Smyrna market on May 27, and a sale of 5 baskets new taleqnale for August delivery is reported at 6s. 5d. per lb. The crop is proceeding satisfactorily, and according to the various accounts which reach us, a total yield of between 7,000 and 8,500 baskets is looked for. In the Salonica district the gathering is now in full swing, and the crop is expected to be at least as large as last year. The Smyrna market on June 1 was weak, and without buyers. The final crop output is expected to be known early in July. It is said that at the opening of the season the stock in all hands in Smyrna, Constantinople, and the interior amounted to 1,700 baskets, or, say, 1,500 cases. During the month of May, a correspondent writes, the transactions in the Smyrna market were small, not exceeding 120 cases, against 450 during April. Quotations, however, are not much lower, the last prices paid being:—For new Karahissar, according to quality, 8s. 6d. and 8s. 8d.; new extra Yerli taleqnale, 8s. 3d. and 8s. 5s.; new slightly taleqnale, 8s. 1d. and 8s. 2d.; new usual run, according to quality, 7s. 9d. and 7s. 11d.; old choice selected, 8s. and 8s. 1d. per lb., all f.o.b. Nevertheless, it is thought that prices must give way before long, if nothing detrimental should occur to the crop in the northern districts, where the harvesting is five to six weeks later than is the case in the surrounding neighbourhood of Smyrna. According to the accounts hitherto received, the Malatia and Salonica crops will not be in excess of last year.

PAREIRA BRAVA coming rapidly down in price; 30s. would probably now be accepted for genuine root, but no bids were made to-day. A parcel of 35 bales imported in pieces was bought in at 40s. per cwt.

PISTACHIO KERNELS.—Twenty-one bags of the Persian pistachios in shell, which have for a long time been in the market, were sold to-day without reserve, at the low price of $\frac{1}{4}$ d. to 1d. per lb.

QUASSIA.—The importation of chip quassia from the West Indies is increasing. At to-day's auctions, 86 bags from Trinidad and other parts of the West Indies were offered—the former, of very fine bright quality, sold, with good competition, at the high figure of 11*l.* 15*s.* per ton; the latter realised from 10*l.* to 10*l.* 5*s.* For 28 tons of quassia logs from Jamaica, new wood, an offer of 5*l.* was refused.

QUICKSILVER.—The market remains quiet at 8*l.* in the first hand, and 7*l.* 17*s.* 6*d.* per bottle in the second. Our imports from Spain last week amounted to 6,000 bottles.

QUININE.—The market has been exceedingly flat this week, and prices are lower. German bulk quinine could probably be bought from second-hand holders for 11*d.* per oz., and 10,000 oz. are said to have changed hands at that figure early this week. Another report, however, gives the price as 11½*d.* per oz.

RHATANY.—For 5 bales fair chumpy root an offer of 4½*d.* per lb. was refused.

RHUBARB.—In fairly good supply at to-day's auctions. Of 106 cases, 48 sold at low prices. *Skensi*: Medium to bold, partly rough and dull round, three-fourths pinky, one-fourth dark, at 1*s.* 5*d.* to 1*s.* 6*d.*; fair coat, small to medium part rough, slightly spongy round, three-fourths pinky, one-fourth dark, at 1*s.* 3*d.*; flat and wormy also 1*s.* 3*d.*; Common round and flat, mixed without reserve, 6*d.* to 7*d.* *Canton*: Flat medium to bold, three-fourths pinky, one-fourth dark, at 1*s.* 5*d.*; small ditto at 1*s.* 1*d.*; good, but rough, round and flat, mixed pickings, at 10*d.* to 11*d.*; medium to bold fair bright coat, but half dark and very wormy, at 6*d.* to 9*d.* per lb.

SARSAPARILLA.—Native *Jamaica* is dearer, and realised 1*s.* 5*d.* per lb. for mixed colours; of 19 bales very fine *Lima* in bundles of the *Jamaica* character part sold at 1*s.* 3*d.*, for sound root 1*s.* 4*d.* is asked.

SCAMMONY.—The new crop in Asia Minor is said to be a good one, and the first small samples have arrived upon the Smyrna market. There is little demand for old resin in the meantime.

SENEGA.—Good bright quality, of good flavour, is said to be selling at 1*s.* 10*d.* per lb.

SENNA.—Of *Tinnevely* about 200 bales were offered, nearly all second-hand, and of very common quality. Part of this, common to ordinary specky yellow and small leaf, sold at 1*d.* to 1½*d.* per lb. Of 10 bales small brownish *Alexandrian* leaf, 5 sold at 1½*d.* per lb.

SHELLAC.—The auctions held on Tuesday were very heavy, consisting of about 2,720 cases, of which, with unexpectedly good competition, about 2,300 cases sold at a decline of 1*s.* 6*d.* to 3*s.* on orange, 2*s.* on garret, and 1*s.* to 2*s.* on button lac. Orange lac realised 79*s.* to 81*s.* for good bright fine but blocky, 76*s.* to 78*s.* for fair to good fair, 73*s.* to 76*s.* for ordinary livery to reddish, and 70*s.* to 72*s.* for common liver. AC garnet realised 73*s.* to 74*s.* for good free, and 71*s.* to 72*s.* for blocky. Since the auction the delivery market, which had previously shown great signs of weakness, has become firmer, and August delivery has sold up to 82*s.* 6*d.* per cwt. Under date of May 20, we hear from Calcutta that all the shellac manufacturers are standing out for higher prices. There is a good demand for all grades of orange lac, while button is exceedingly scarce, and advancing daily, owing to the inability of sellers to fulfil their contracts. It is said that there is hardly any stock in Calcutta or at the Mirzapore factory, whilst sticklac is arriving very slowly.

SQUILLS. Twenty-eight bags of dark squills sold at the very low price of ½*d.* per lb., on condition that this would pay the charges.

TAMARINDS.—West Indian are again lower; about 350 barrels were offered to-day, and mostly sold, new Barbados at 8*s.* 6*d.* to 9*s.*, ordinary at 7*s.* 6*d.* per cwt.

TEA.—The China market is unchanged, fair common Congou being obtainable at 5½*d.* to 5¾*d.* per lb., and useful teas—Onfas, Mingchons, Panyongas, and Soomoos—at 6½*d.* to 6¾*d.* Catalogues of about 1,200 boxes fair liquoring 1891 new makes were printed for Thursday, and good prices were realised, ranging from 8*d.* to 11*d.* The terminal market for Congous is unchanged; but for Assams it has fallen

heavily, June and July quotations being 9½ to 9¾, and August 8½ to 8¾. There is, however, very little coming to the hammer, and the country trade is holding off Indian teas, and paying more attention to Ceylon growths. Tuesday's heavy Ceylon sale went at fairly steady prices, useful Pekoe souchongs going at 8*d.* per lb., and really good Pekoes 9*d.* upwards.

TONQUIN BEANS.—One case good bold black *Para* sold at 2*s.* 10*d.* to-day, for fine frosted beans 4*s.* is the price.

TURMERIC.—From Calcutta we hear, under date of May 20, that the local demand keeps the market exceedingly firm, but that nothing is doing for shipment.

VANILLA.—In good supply and easier, fine beans being about 1*s.* 6*d.* cheaper; 9 to 9½ inches, fine slightly crystallised, 20*s.* to 24*s.* 6*d.*; 7½ to 9 inches, 13*s.* to 18*s.* 6*d.*; smaller and irregular sizes from 12*s.* 6*d.* down to 5*s.* 6*d.* per lb.

WAX (BEES).—*Jamaica* still continues in demand, and is again somewhat dearer—good red to fine orange and yellow, 7*l.* 7*s.* 6*d.* to 7*l.* 15*s.* per cwt.; ordinary brown, 6*l.* 15*s.* *Madagascar* bees-wax slightly easier at 6*l.* 10*s.* to 7*l.* for good brown and yellow mixed. In Italy there is very little beeswax left available, and owners are asking considerably higher prices.

WAX (JAPAN).—For good pale squares only 40*s.* was bid in sale to-day, and the lot was bought in at 42*s.* 6*d.* per cwt.

CHEMICALS IN THE NORTH OF ENGLAND.

THERE is a steady business doing in heavy chemicals, and prices, on the whole, continue firm.

BLEACHING-POWDER is moving off freely at 6*l.* 12*s.* 6*d.* per ton on rails Widnes and St. Helens; and 6*l.* 15*s.* per ton f.o.b. Liverpool or Tyne in softwood casks; and 7*l.* per ton in hardwood casks f.o.b. Liverpool or Tyne, all net cash.

CAUSTIC SODA.—70-per-cent. is now quoted on the Tyne at 11*l.* per ton; and 77-per-cent. 12*l.* 5*s.* per ton net; 74-per-cent., 11*l.* 15*s.* per ton; 70-per-cent., 10*l.* 15*s.*; and 60-per-cent., 9*l.* 10*s.* per ton, f.o.b. Liverpool.

HYPOSULPHITE OF SODA.—Good export business is doing, and prices are firm; 1-cwt. kegs quoted 7*l.* 10*s.* per ton; and 7-8-cwt. casks, 7*l.* per ton in 10-ton lots, net cash, f.o.b. Tyne; 7*l.* 10*s.* and 8*l.* per ton c.i.f. Liverpool; and 7*l.* 12*s.* 6*d.* and 8*l.* 2*s.* 6*d.* delivered Manchester, for casks and kegs respectively.

SODA-ASH steady at 1¾*d.* per degree, less 4 per cent., f.o.b. Tyne; Liverpool prices for carbonated, 48-per-cent., 5*l.* 7*s.* 6*d.* per ton; 52-per-cent., 5*l.* 16*s.* 3*d.* per ton; and 58-per-cent. 6*l.* 10*s.* per ton; caustic, 48-per-cent., 5*l.* 2*s.* 6*d.* per ton; and 52-per-cent., 5*l.* 11*s.* 3*d.* per ton, f.o.b. Liverpool.

SODA CRYSTALS.—Easier at 3*l.* 5*s.* to 3*l.* 10*s.* per ton in 3-cwt. barrels f.o.b. Liverpool; and 2*l.* 15*s.* 6*d.* per ton, gross weight, f.o.b. Tyne.

SULPHATE OF SODA.—Quiet at 40*s.* per ton, in bulk, on rails Widnes and St. Helens; 40*s.* per ton in bulk, and 50*s.* per ton ground and packed in casks, f.o.b. Tyne.

THE AMSTERDAM CINCHONA SALES.

(Telegram from our Correspondent.)

AT to-day's auctions, 2,606 packages Java bark were disposed of at an average unit of 6¾*d.* cents (equal to about 1½*d.*) per lb. Manufacturing barks in quills, broken quills, and chips, realised from 9 to 57 cents (equal to 1¾*d.* to 10*d.*) per lb.; ditto fine root, from 7 to 43 cents (equal to 1½*d.* to 7¾*d.*). Druggists' barks in quills, broken quills, and chips, 17 to 139 cents (equal to 3*d.* to 2*s.* 1*d.*); ditto root, 11 to 15 cents (equal to 2*d.* to 3*d.*). The principal buyers were Mr. Gustav Briegleb, the Brunswick Quinine Works, and the Auerbach Quinine Works.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

"Physicians' Prescriptions Accurately Prepared."

SIR,—I may not have had so long an experience as your correspondent, Mr. Richards, but for the last twenty years or thereabouts I have been engaged in dispensing pharmacies, both London and provincial (Lancashire and Yorkshire), and I read with the greatest amazement how the West of England pharmacists understand the meaning of the familiar words, "Physicians' prescriptions accurately dispensed." My general experience of masters (if in these democratic days I dare use such a word) is that they are men of honour, who would as soon think of attempting to pick a customer's pockets as omit the active ingredients from his prescription, or make fractions of a grain a "trick of the eye." I recall one instance, and only one, where Mr. Richards's picture of pharmaceutical tools and commercial morality would apply, and as I then had some vestige of a conscience I quickly brought the engagement to a close.

I should hope for the honour of pharmacy mine is by no means a rare experience. C. P. (56/10.)

SIR,—Until I saw the letter in your issue of yesterday from Mr. Ryder, I had not read Mr. Richards's. I must say when I did read it I was astounded. I have been in ten businesses all over the country, as well as a dispenser at Guy's Hospital, and though several of the shops could hardly be called first-class ones, they all possessed scales that would weigh very much nearer than 10 per cent. off the required quantity. What Mr. Richards means when he talks of "an assistant striving for .05 grain of strychnine," I cannot understand. Does he infer that in the first-class businesses in the West there are some chemists who use analytical balances which will weigh $\frac{1}{20}$ gr.? As to assistants leaving out such "unimportant items as ex. nuc. vom. and ex. bellad." that must be a wilful libel on the trade. I have been assistant (one of three dispensers) in one of the best-known West-end businesses where eight assistants are kept, and I never heard of or saw such a thing.

Hospital dispensing is generally much despised for its inaccuracy, &c., but if Mr. Richards carried on his system in one of the best London hospitals, he would quickly resign. How, for instance, would he dispense such prescriptions as the following, which occur very frequently:—

Inj. homatrop. hydrobr. 3j.
(mij. to contain $\frac{3}{100}$ gr.)

All these hypodermic solutions (except those in B.P.) are made as required, and the strength varies very much. In conclusion, I hope that the chemists generally, and the West-country ones in particular, will give their views on the limits of inaccuracy. If they correspond with Mr. Richards's, it is quite time that chemists' weights and scales should be examined by the Government inspectors.

Yours, &c.,

Coventry, June 6.

A. A. B. (57/35.)

SIR,—In answer to Mr. Ryder's statements in your last issue, under the heading "The Limits of Accuracy in Dispensing," I am pleased to find I have been mistaken, as I had long since come to the conclusion that "conscientious

chemists" were, like angels' visits, "few and far between." The fourteen years I have been in the drug trade I have held some good herths, both in Devon and the Midlands, and have found, with only one exception, that the rule has been, if you have not the exact pills as per prescription made, send the nearest you have, as a little ext. nucis vom. or belladon. won't make any perceptible difference.

One chemist, not many miles from Teignmouth, told me that he always sent out coated pills to save him the trouble of making them. I asked what he did in case he had to dispense a prescription. He said, "That's easily managed; I send the nearest I have in stock." Not long since I started making up a batch of pills from a prescription containing ferri. sulph.; I was told not to waste my time about them, but to send our "female pills"—the patient would never know the difference. These are only a few of the many instances I could quote. I should like to know how many of the recipes for horse-powders are made "*ut R_x*." I am afraid the stock mixture has to do for all. I know a chemist who never refuses a copy of prescription when requested by a customer who has lost the original, but always omits the most important ingredient, so that the patient shall be unable to get the same mixture elsewhere. I have frequently discussed these subjects with other assistants I have met with in different towns, and have heard sufficient from them to justify my belief that many chemists have no consciences at all. I sincerely hope it has been my misfortune to be employed by the only unscrupulous men in the trade.

Yours truly,

AN ASSISTANT. (57/38)

[Our correspondent's experience appears to be of the "extensive and peculiar" kind, and his hope is nearer the truth than the supposition that his assertions are generally applicable.—ED. C. & D.]

The "Sticking-point."

SIR,—I am glad that so experienced an advertiser as Mr. William E. Geddes should have taken up the suggestion thrown out in my newspaper article republished in THE CHEMIST AND DRUGGIST on May 30, and made the attempt to enlighten advertisers who have encountered the difficulty I described. Mr. Geddes would be doing us all a good turn if he could define the best methods of procedure to augment sales after that hockade-point in the career of a patent-medicine has been reached at which the demand seems to stick and to refuse to be urged further. That such a result is experienced, Mr. Geddes judiciously abstains from denying, and he does not cite any evidence to show the reverse; nevertheless he hints, not too obscurely, that his own opinion is to the contrary, and that when this apparent sticking-point is reached, it really means something wrong with the advertising department, which, being adjusted, will admit of an unchecked advance.

That Mr. Geddes, however, has failed to appreciate at least one element in the situation will have been perceived by the least acute of his many interested readers. If we allowed him to persuade us that there was really no "sticking-place," we should find ourselves confronting the idea that the employment of an article of limited utility can be extended without limit—a contradiction in terms. It is evident, therefore, that in the nature of things there *must* be somewhere a saturation-point. You cannot advertise medicine into the throat of a man who does not want it, and the number of people who can be frightened by "awful narratives" into thinking themselves ill is also limited. Moreover, no ingenuity of advertising will save you from the inevitable element of competition. One of my chief objects in addressing the American journal which originally contained my essay was to elicit expert opinion as to the best methods of maintaining sales when the saturation-point had been approximated. If Mr. Geddes is not too much wedded to his thesis that no such point exists, nobody's opinion on the subject could be more interesting or authoritative.

But apart from this, every advertiser knows that there is a place, short of actual repletion, at which sales stick. Expert advertisers will not discover in the letter of Mr. Geddes any new plans for publicity, and I have no hesitation in saying that the moment an advertiser undertakes to estimate the result of each particular advertisement, and to express

the result by a division of 1s. 1½d. into the 100% cost of a certain page, he is demoralised and has lost his grip. To any such competent expert all the methods of publicity mentioned by Mr. Geddes are perfectly well known, and it is a matter of each man's experience, and the peculiarities of his own business, to say which is the best to use. I do not know any successful advertiser who (to borrow of Mr. Geddes a recondite metaphor) has not "burned the midnight oil." Many have doubtless secured a wrinkled brow, and possibly a reputation for temper also. Certainly I have not sung the song of lament, nor advocated the folding of hands—a proceeding to which the fraternity of medicine-mongers is, in sooth, little addicted. Rather have we sought such a Gamaliel as Mr. Geddes, at whose feet we might sit, gathering the crumbs of advertising wisdom that fall from his lips.

But since it is not denied (even by Mr. Geddes) that there is known to experience a sticking-point short of actual saturation (and I happen to know a number of successful advertisers who have met with it), it is pretty certain that all the methods known must have been tried. There are often minor stopping-places before the great block is reached, and they are very hard to get over. A history of their conquest, from various pens, would be very instructive reading. Especially valuable, too, would be what I have desiderated in my previous article—I mean statistics of sale and advertising expenditure on medicines of admitted success, extending over a number of years. Such a record would reveal many curious facts, and I should be very much surprised if Mr. Geddes did not find it sufficient to "screw his courage to the sticking-point," or, rather, to a belief in the existence of that very real entity.

Yours truly,

46 Holborn Viaduct,
London, E.C.

JOHN M. RICHARDS.

P.S.—Since writing the above I have seen, for the first time in my experience, a statement of sales definitely attested. In the *Star*, June 9, an advertisement of sulphur tablets contains the certificate of a chartered accountant, showing a sale in this article for April last of 66,156 packets—nearly 460 gross. It may be assumed that this result would not have been made the subject of advertisement if it had not been considered something more than eminently satisfactory. How closely it approximates to my estimate published in *THE CHEMIST AND DRUGGIST* as long ago as May 1885 (I said 500 gross would be a high limit), it would, perhaps, not be modest for me to take too much satisfaction in pointing out.

Assistant's Dinner.

SIR,—I have this day read "M. K.'s" interesting letter entitled "A Chemist Assistant's Dinner." On perusing this letter a few thoughts came to my mind; the first was, "How many chemists' assistants in England are placed in a similar position to 'M. K.'?" I fear a great many.

The second thought was, "Is the writer detailing his experience of one day only, or is it daily, weekly, and monthly?" If it is so, I pity him, and at the same time I would suggest that he is a little to blame. An assistant, after working hard from 7 or 8 A.M. to noon, is entitled to a good square meal, and he should see that he gets it, a thing which (I presume) "M. K." never gets, and which "M. K." should insist on having, even if he has to allow the boss to go in first and have his. The governor would appreciate and respect his assistant much more if he stuck up a little more for his rights, and spoke out his mind respectfully but plainly. Surely berths are not so scarce in England but that a good assistant can find one where the employer is a little more considerate for his assistant's comfort than the one mentioned in this case.

In France every assistant has his allotted time for meals, and even the *garçon* is not called up from his mid-day meal unless there is something very important to be carried out.

Aix-les-Bains, AN ENGLISH ASSISTANT. (59/50.)
May 8, 1891.

["English Assistant" takes "M. K.'s" humorous description of his prandial difficulties rather too seriously. Most readers, we think, will have understood "M. K.'s" sketch to have been a somewhat exaggerated representation of his hardships.]

Action of Salts on Cocoa Butter.

SIR,—In your issue of June 6 I notice a communication from Mr. Clague respecting the influence of certain chemicals on suppository bases. If Mr. Clague will refer to *THE CHEMIST AND DRUGGIST* of March 29, 1890, he will notice a note of mine bearing on the query of "Perplexed" to which he refers. In that note I gave as the result of my observations that ferric nitrate did not sensibly raise the melting-point of ol. theobromæ if the precaution were taken of mixing them at a very low temperature. Since Mr. Clague's contribution I have repeated the experiment, merely to verify it. First melting the ol. theobromæ, then when beginning to solidify stirring in the ferric salt, I obtained the same melting-point both before and after the mixing (viz., 28° C.), a very low one even for ol. theobromæ, but upon applying a little heat (by holding the vessel a few inches above a naked flame, as is usually done) the melting-point was raised to 42° C. I think this can be explained by the known readiness with which ferric nitrate is split up. Thus the sample with which I experimented is neutral in reaction when dissolved in cold water, but decidedly acid after gently heating. What the effect of keeping will be on the melting-point of this mass I cannot say, but I purpose keeping some and repeating the experiment. I enclose a sample of the same.

Yours truly,

A. EBERLIN.

2 Chapel Bar, Nottingham.

"The Syphon Trade."

SIR,—In your article under above heading in *THE CHEMIST AND DRUGGIST* of May 9 I note two remarks, on which, with your permission, I would like to comment.

Referring to the deposit system, you say "this practice ensures safety." I am not so sure of that, and I would like to warn those of your subscribers who charge a deposit against buying back more syphons than they send out. I speak feelingly. I have been "had" myself, and, having arrived at the conclusion that second-hand syphons were dear at 2s. 6d. each, I abandoned the deposit system after three months' trial, and took to lending.

The other point I wish to touch upon concerns my syphon register, &c., which you kindly refer to in your article. You say, "It does not give the customer formal printed notice that he will be held responsible for the syphon lent to him."

I enclose herewith a copy of the label which I attach to all my syphons, and you will perceive that the notice is very formally and distinctly set forth thereon.

I am afraid, Sir, that many syphons are lost because the dealer sends them out with the filler's label on, and no other. Labels cost very little money nowadays, and I am sure it would pay every dealer to have his own. I would respectfully commend to other dealers a label similar to the snbjointed:—

This syphon is lent until empty; if not
returned within 30 days will be charged 2/6.

LEMONADE.

From J. E. CROFTS, Dispensing Chemist,
57 GRANGE ROAD WEST,
No. BIRKENHEAD.

I am, Sir, yours truly,
J. E. CROFTS.

Licensing Patent-Medicine Vans.

SIR,—I am now in receipt of an official letter from the secretary of the Inland Revenue stating that they do not give any sanction for the sale of patent-medicines from a van or stall in the streets. It appears in some few cases licences to vans have been erroneously issued, but none will be issued hereafter; from which I understand that now licences for the sale of patent-medicines can only be granted

to the legitimate dealer who occupies a fixed place of business.

While this affects us as far as our four-in-hand coach is concerned, I believe fully in the measures adopted by the honourable Board of Indian Revenue. I do not believe that patent-medicines should be sold from travelling vans, as thereby the Medicino-Stamp Duty is many times evaded.

I have instructed the manager of our four-in-hand coach that he cannot sell St. Jacob's oil from his coach. This will, I think, be a death-blow to travelling vans hereafter.

Yours very truly,

P. P. The Charles A. Vogeler Company,

WILLIAM E. GEDDES,

45 Farringdon Road, London, E.C.,

Manager.

June 8.

Halviva.

SIR,—In your issue of May 30, and in reply to a correspondent, you say that creyat, or halviva, is chiretta.

Halviva may or may not be chiretta—as a matter of fact, I believe the compound sold under that name is principally composed of chiretta—but creyat, although often confounded with chiretta, is really *Andrographis (Justicia) paniculata*, official in the Indian Pharmacopœia, and called in the Indian hazaar "Kariyât," and is like chiretta a bitter tonic, but instead of its natural order being Gentianaceæ it is Acanthaceæ.

I am, Sir, yours truly,

West Kensington,

GEO. A. WILLIAMS.

June 3.

False Trade Description.

SIR,—I shall feel obliged if you will allow me through your valuable journal to direct the attention of chemists and druggists to a very common practice which prevails to a considerable extent among the members of the important business of which your journal is such an admirable exponent. This custom is both unfair and illegal. I allude to the use of hottles bearing the names and trade-marks of their owners engraved on the hottles, which are brought to the shop of the druggist for fluids of various kinds, and are (without inquiry) made use of for any ingredient the customer may require. I am quite aware that many of the highest class of chemists and druggists do not as a rule adopt this unjust method, but a very large number are not particular, and readily supply what is asked for, and place their own labels on the bottle.

This is the cause of much trouble and loss to the rightful owners of such hottles, and is also unlawful.

Recently a case of the kind was brought before the Birmingham justices, and the offender was fined for selling oil in a hottle bearing the registered trade-mark of its owner. I am sure that if through the columns of your paper you call attention to this unjust practice, and recommend chemists and druggists to refuse to fill hottles brought to them which plainly bear the name and mark of the rightful proprietors, you will advance the principles of that fair dealing which should characterise honourable trade, and oblige,

Yours faithfully,

W. TOOKE,

Secretary of the Yorkshire Mineral-water Manufacturers' Association.

June 4.

[We believe the Merchandise Marks Act is wide enough in its terms to render it illegal to sell a pennyworth of hair oil in a soda-water hottle bearing a maker's name, and we presume it was a case of this character at Birmingham to which Mr. Tooke alludes. But this is not quite a fair use of the Act. The aerated-water makers are justified in preventing A from filling B's hottles with aerated water of his own manufacture; but, as we understand, they are aiming to enforce the return of such hottles to the owners by rendering them as useless as possible, and they want chemists to act as their policemen. There would be the less objection to this if mineral-water makers would themselves look after their hottles a little more briskly. They have, however, the law on their side, which is a fact which chemists will do well to note.—ED. C. & D.]

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Draughts.

SIR,—As a medical man of between fifteen and twenty years' experience of active work, may I say that I think your correspondent "S. A. C.," in your last week's issue, acted quite in accordance with the meaning of the words used by the writer of the prescription quoted? I cannot conceive the possibility of making "Ft. hanst." mean "Ft. mist." and we most of us know that when we tell a patient to take a draught the patient, in nine cases out of ten, understands a single dose out of a single bottle, and if the draughts be made up in quantity and duly labelled one-sixth part as directed, one may quite expect a message from the patient as to the accuracy of the compound. To my mind the whole difficulty and annoyance has been caused by the loose use of the word "haust." Had the prescriber used the word "mist" with the same directions, his meaning would have been quite clear; as it is, he blames the chemist for using a strictly correct translation of the word "haust." When we, as practitioners, send our prescriptions to a chemist for dispensing, it is our duty to use every care to make our meaning clear, and not rely, as in hospitals, upon the dispenser being versed in our own particular methods or fads.

I am, Sir, yours faithfully,

MEDICUS. 58/32.

SIR,—I was greatly surprised at your answer to your correspondent, "S. A. C." In dispensing such prescriptions I have always sent the draughts in separate hottles, which I was taught to do where I was apprenticed. I have been in some of the best West End houses, and it has been invariably the custom there to send them separately. I think the doctor displayed his ignorance of dispensing, firstly by combining the syrup of lemons with the sal volatile, which would certainly spoil its effect by neutralising the ammonia; and, secondly, by censuring the chemist.

I am, yours truly,

A. P. S. 58/52.

SIR,—I consider the fault to lie with the doctor. In my opinion "S. A. C." was justified in dispensing the prescription as he did; if the sign " $\frac{z}{3}$ " had been put before "vj.," then a 6-oz. hottle would have been sent. I take it the doctor would have been equally disagreeable had he intended separate draughts, and a 6-oz. had been sent. The $\frac{z}{3}$ stands for either, hence the doctor's position is very easy.

Yours truly,

MAJOR. (59/63.)

Zinc Chloride Solutions,

SIR,—Is it allowable, in dispensing zinc chlor. and aq. dest. for lotion, to dissolve the oxychloride formed by the aid of q.s. acid. hydroch. dil., or should it be sent out cloudy, with a "Shake the bottle" on? Which should be done?

Yours faithfully,

W. O. S. (214/13.)

[The solution is generally sent out clear. The addition of acid is a neat little scientific trick, which is apt to be carried too far. The decomposition is really small in amount, and removal of the oxychloride by filtration is the preferable course to adopt.]

A Dentist's Prescription.

SIR,—The accompanying prescription, written by a West-end dentist, was presented to me to be dispensed a week ago. I declined to dispense it without referring to the prescriber first, calling his attention to the enormous strength of the solution.

This I did. He replied confirming the prescription, and ordered it to syringe the antrum cavity only twice a week.

consulted an eminent medical man, who advised me not to dispense it as written.

May I invite the opinion of your readers on the point?

Westgate-on-Sea,

Yours faithfully,

June 10.

F. R. BESSANT.

Perox. hydrogen

Bichlor. mercur.

Equal parts aa.

To syringe stumps twice daily, with cotton dressing.

[We should say that the prescriber did not know what he was writing about, and we should not hesitate to dispense equal parts of 10-per-cent. solution of hydrogen peroxide and the official solution of mercuric chloride. To dispense as written would be impossible; and were it possible, the dispenser would lay himself open to a charge of homicide.]

Hydrarg. Oleas and Extract.

SIR,—Could you inform me which would be the best method of dispensing the following:—

Hydrarg. oleat. 5-per-cent. 3j.

Extract. belladonnæ 3j.

M.

The extract being wholly incompatible with the oleate, I displaced 2 drachms of the latter with water, dissolved the extract in this, and then added the hydrarg. oleas. It turned out very decent, but I do not know whether this mode of procedure would be admissible. I am, yours faithfully,

HEDERAL. (59/61.)

If Mr. T. Brown (page 780, 46/3) will leave out the tincture of calumba in his quinine and iron mixture, I think he will find *no* deposit. The tr. calumbæ is not wanted in the mixture at all.

DENS. (55/7.)

LEGAL QUERIES.

57/29. *H. L.*—It is illegal for anyone but a registered chemist and druggist to sell by retail either oxalic acid or any preparation of opium.

56/15. *T. L.*—We should regard the sentence on a handbill concerning a medicine, "Always ask for that made by Blank," as implying the claim of a proprietary right, and thus rendering the medicine liable to medicine-stamp duty.

57/61. *Jack* says:—"A agrees to act as assistant to B at a certain salary, and is to have a fortnight's holiday a year. This arrangement has been carried out for three years. Now A wishes to leave B's service, when only nine months of the fourth year have expired. Can A claim a proportionate part of his holiday, or pay in lieu of it?" [It would appear that the fortnight's holiday is contingent on the year's service. A would not, therefore, be entitled to it unless he had worked, or intended to work, for a complete year.]

58/71. *Vilja*—At present unqualified persons do compound and sell stamped medicines containing scheduled poisons. It is still an undecided point of law whether they are within their legal rights in so doing. The question, if it should ever be brought to trial, would turn on the interpretation of the term "patent medicines" in the 16th section of the Pharmacy Act, 1868.

57/56. *Tulip*.—An unqualified man can take an apprenticeship and teach him his business, whatever that business may be. If it include the dispensing of prescriptions, the unqualified master's certificate will be as valid as anybody else's for the purposes of the Minor examination. In fact, it is questionable whether under the present law the requirement of any such certificate is legal.

57/57. *A. B. C.*—It is not strictly legal for a jeweller to sell as a silvering solution a preparation of a metallic cyanide. But the Pharmaceutical Council is entrusted with

discretion in the prosecution of any such infringement of the Act, and it is apparently regarded as unwise to use the Act to the manifest interference with trade which is not pharmacy. If the jeweller sell such a preparation not duly labelled and registered, any one can prosecute him.

57/70. *C. D.*—If your opponent can satisfy a court that customers are likely to be deceived in buying your preparation into regarding it as his he can get an injunction against you independently of trade-mark registration. The title can probably be protected only under the Trade Marks Act.

56/33. *Kola*.—If the article you sold was nothing more than an aqueous solution of the drug, we think that explanation would satisfy the Board. But we presume there is something besides in it, if only spirit. In that case the preparation is certainly liable to medicine-stamp duty. Several articles named on your list are also liable.

59/64. *Kola*.—Your preparation becomes liable, because on your label you recommend it for certain complaints incident to the human body. It would have been exempt (notwithstanding the recommendation) if the preparation had been a simple drug, or an aqueous solution of such. You admit it is a "flavoured" extract; and we presume you add some spirit. You can only escape liability by entirely omitting from your label all recommendation of the article for specified complaints. We may add that we think you are a little unfair to the Board of Inland Revenue. It is entirely an act of grace on their part that they give opinions as to liability of medicines to the stamp duty. We do not know of any other public department in the country which gives a similar advantage. In cases where it becomes necessary for the Board to have the medicine analysed before replying, some delay must be expected.

JAHNCKE'S PATENT METALLIC BOXES.—We refer our readers to the statement on p. 813.

MISCELLANEOUS INQUIRIES.

Correspondents who ask replies to be inserted "this week" or "next week" are reminded that we do not guarantee replies, and that their insertion depends upon the space at our disposal for such matters. It is generally impossible for us to find room for queries the same week they are received.

55/74. *Inquirer*.—We cannot express an opinion about the mortar.

55/34. *Kickapoo*.—You should detannate the wine with isinglass before adding the malt and beef extracts. It is the tannin in the sherry which causes the precipitate.

55/23. *R. C. D.*—As far as our experience of liquors for tinctures goes they are satisfactory. We reported favourably upon some which we examined a year or two ago, and we have had no cause to change our opinion of them.

58/14. *Sobrietas*.—(1) Thanks for your cutting. The statements regarding the virtues of mutton-suet as a healer are by no means new. (2) We have seen nothing but assertions regarding the use of Kola in the Treatment of Dipomania. Any virtue which kola possesses is due to its active principle—caffeine. You can get the drug from any wholesale druggist. We have given formulæ for preparations this year.

57/66. *Nostrebor*.—The insoluble film in glass water bottles is not a deposit, but is the result of the solvent action of the water upon the glass. It could only be removed by polishing.

57/53. *Admiral*.—Sir Andrew Clark's Aloin Pills.—Each pill contains half-a-grain of each of the following: aloin, extract of nux vomica, sulphate of iron, myrrh, and soap. Extract of belladonna may take the place of the extract of nux. One pill, or part of one, is a dose, half an hour before the last meal of the day.

53/14. *P. M.*—*Spiritus Aromaticus Silvestris*.—

	Parts.
Ol. thymi	5
Ol. terebinth	5
Bals. vitæ Hoffmanni	5
Spirit. vini rect.	50

(All by weight.)

Misce.

Hoffmann's balsam is the mist. oleoso-halsamica, a solution of 4 parts each of the oils of lavender, cloves, thyme, lemon, nutmeg, and orange-flowers, and 12 parts of Peruvian balsam, in 1,000 parts of rectified spirit. If you got for spt. arom. Silvest. an ammoniated preparation, it was distinctly wrong.

59/10. *Phar. Chem.*—THE CHEMIST AND DRUGGIST, September 22, 1890, was the last Educational number, and is the one you are in want of.

53/7. *E. Lloyd*.—The huttercup is a very good specimen of fasciation (*i.e.*, a union of several stems side by side, or flattened). It is not an uncommon occurrence.

55/2. *Dunedin*.—We find that there is no such thing as Sympns Zinci Phosphatis, Guy's Hospital.

116/91. *H. P.*—*Lotion for the Eyebrows*.—The composition of the sample which you send us is, as near as we can make out, camphor, oil of rosemary, chloride of ammonium, common salt, spirit and water. Try the following formula:—

Common salt	1 drachm
Chloride of ammonium	10 grains
Camphor	5 "
Oil of rosemary	10 drops
Rectified spirit	1 drachm
Water to	1 oz.

Dissolve the oil and camphor in the spirit, the salts in the water, and mix.

217/33. *J. O. A.*—We will shortly publish an article which will meet your wishes.

53/74. *Rhei*.—Your comments on the Corner for Students are based on insufficient observation. It is not the case that the exercises are continually getting more difficult. Their relative severity is very variable. If the contributors remained the same for any length of time, it would be a good thing to have the exercises progressive; but they are always changing, and this fact is taken into consideration. If you were to take the trouble to look over the exercises for any considerable time, you would find that one which has proved difficult to the majority has been followed almost invariably by one that was easy.

58/4. Messrs. Jones & Son, Worksop, send us a card quoting wholesale terms for trusses sent open through the post by a Manchester house. Our correspondents express objection to this method of making trade announcements, and say they prefer to read such as advertisements in THE CHEMIST AND DRUGGIST.

58/61. *An Old Subscriber* (Sheffield) has not sent his name. The information which he requires has been given in recent issues.

55/6. *Senex*.—*Arsenical Sheep-dip Powder*.—White arsenic, 1 lb.; sulphur, 12 oz. Mix. This quantity is for 40 gallons of water. The directions should be as follows:—Boil the water, and add the powder to it, along with 1 lb. of washing soda, or 1-lb. packet of soap-powder; continue to boil for ten minutes, and allow to cool, when the wash is ready for use.

51/25. *Gaelic*.—*Plain Bronze Lacquer* is a solution of 3 ozs. of seedlac in a pint of methylated spirit.

54/46. *Ponko*.—We have not yet examined Tonquinol, but, as far as we can judge of what is said of it, it will not do for making essence of musk. (See page 827.)

209/27. *A. A.*—*Powder for Destroying Beetles*.—(1) Red lead, 1 part; rye flour, 4 parts. Mix. (2) Borax, 1 part; fine oatmeal, 3 parts. Mix, and colour with burnt umber.

50/21. *A Would-be Analyst*.—There is no law governing the qualifications and titles of analysts. If you wish to obtain a situation, you must be able to show that you have the ability and skill necessary for the work to be done. Judging from what you state of your qualifications, it is unlikely that you would get into any laboratory at present, unless by favour and without salary. The best advice we can give you at present is for you to read the article "Scientific" in our last Educational number, and when you decide upon what department you wish to follow up you can write to us again, but please state your qualifications more fully.

50/31. *A. S.*—No.

49/65. *Exper. Docet*.—*Photographic Notes*.—The safe rule to follow in developing over-exposed plates with hydroquinone is to omit bromide (which simply retards the action of the alkali) and reduce the amount of alkali. Bear in mind that the effect of exposing a plate is to reduce part of the silver salt. The hydroquinone completes this reduction, forming the image, and the alkali washes out the silver salt which has not been acted on. It follows that in a case of over-exposure you want to complete reduction and wash out surface salt as quickly as possible, hence the omission of the bromide. Begin with half the amount of alkali, and if in thirty seconds the plate does not develop with sufficient rapidity add more. As you gain experience in working, and study the effect of different chemicals, you will become confident. Bear in mind that sulphites are restrainers, although not nearly so powerful as bromides.

50/26. *Piscator*.—(1) All the photographic dealers who advertise their goods in this journal publish books of directions for beginners. Send 1s. in stamps to any of them. You may also get "Photography Annual" (Hilfe & Son, 2s), which contains a useful section, "Tips for Tyros." (2) See reply 240/54 in our issue of February 21. An average of 6d. may pay you for the doctor's 8-oz. mixtures, bottles excluded.

Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

58/72. Makers of 1d. graduated tumblers.

209/27. Formula for Brittenden's oils for cattle.

59/17. Formula for gelatine coating, suitable for spreading on felt to make corn-plasters.

56/8 Makers of "Eclipse" meat biscuits for dogs.

56/6 What is "White Malcombe," used by gamekeeper in Sussex for pheasants.



SHOP BOTTLES & JARS

WITH VITRIFIED (burnt in) LABELS

(Black Letters on a ground of Pink or White Enamel).

Labels indestructible and of elegant appearance, forming an even surface with the glass or porcelain. The Jars of best porcelain, thoroughly greaseproof. The Bottles hand-made and of superior quality. Both are unsurpassed by anything in the market in every respect. Also a CHEAPER sort of Bottles and Jars, with labels equally indestructible, but very plain, especially suitable for Dispensaries, &c. Intending Buyers are requested to inspect Samples at

H. POTHS & CO.,

4 CREECHURCH LANE, LEADENHALL STREET, E.C.

A large number of Shops have been fitted up with these Bottles and Jars, both in England and the Colonies, a list of which can be had on application.



LATEST NOVELTIES:

POISON BOTTLES of Ribbed Blue Glass, with RAISED White Vitrified Letters, and the Word "Poison" in Red at foot [1]
DRAWER LABELS of Crystal Glass, with Bevelled edges and Vitrified Labels to match the above Bottles and Jars.

A STANDARD LIST OF LABELS for Chemists' Shop Bottles, Jars, and Drawers will be sent free on application.

A STOCK OF SMALL SETS ALWAYS ON HAND.

TELEGRAPHIC ADDRESS: "POTHS LONDON."

PURE OXIDE OF ZINC (HARRIS'S)

SPECIALLY PREPARED FOR PHARMACEUTICAL PURPOSES.

PHILIP HARRIS & CO., LIM., Manufacturing Wholesale and Export Chemists, BIRMINGHAM.

CHEAPEST BEST & MOST SALEABLE ARTICLE IN THE MARKET

CRYSTAL PALACE JOHN BOND'S GOLD MEDAL MARKING INK

Given away with every 6d. and 1s. Bottle, a Voucher entitling Purchaser to their name in full, or Monogram Rubber Stamp, for Marking Linen or Stamping Paper.

The Editor of THE CHEMIST AND DRUGGIST says:—"A very neat, useful article, really well made, and wonderful value for money."
 KINDLY DISPLAY IN WINDOW AND COUNTER. Works—75 Southgate Road, LONDON, N.

"Vinolia"

1/9, 3/6, and 6/- per Box.

"LYPSYL" (a Coraline Emollient for the Lips), 1/- per Box.

"Vinolia Soap"

Floral, 6d., Balsamic (Medical), 8d., Otto Toilet, 10d., and Vestal, 2/6 per Tablet. Shaving Soap, 1/-, 1/6, and 2/6 per Stick; Flat Cakes, 2/-.

"Vinolia Powder"

1/9, 3/6, and 6/ per Box, in Pink, White, and Cream.

Vinolia Dentifrice

English, 2/6; American, 1/6.

Vinolia Shaving Foam

In Collapsible Tubes, 1/6.

All Chemists should keep a good stock of "Vinolia" Soap and Preparations, as they are the most saleable goods they can exhibit. Price Lists on application.

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REFINED AND RECRYSTALLIZED.

PURE AND CHEAP:

ANALYSIS.

Bicarbonate of Soda	...	---	...	---	...	97.20
Mono Carbonate of Soda	...	---	---	---	...	1.90
Sulphate of Soda	...	---	---	---	...	trace
Chloride of Sodium	---	---	---	---	---	.035
Moisture	...	---	---	---	...	.82
Insoluble	...	---	---	---	...	nil

PURE ALKALI,

GUARANTEED 58 DEGREES,

EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers,
Bleachers, Dyers; Glass, Paper, and Soap Makers.

SODA CRYSTALS

OF THE FINEST QUALITY.

BRUNNER, MOND & CO., LIM.

*Manufacturers of Soda by the Ammonia Process
(Solvay's & Mond's Patents),*

NORTHWICH CHESHIRE.

INFLUENZA.

Its History from compilations by Dr. Parkes, Sir Gregory Baker, Dr. Farr, and others, with Comprehensive Notes upon "Practical Treatment."

The History of Influenza carries us back to a period so remote that reliable information is wanting—even earlier than 1741, when its name was introduced from Italy; but since then the evidence is comprehensive and trustworthy. In analysing these records, which have been carefully compiled by Dr. Parkes, Sir Gregory Baker, Dr. Farr and others, there is a striking uniformity of deductions as to the conditions which influence the death rates, and the principles upon which treatment should be founded, although there is considerable difference of opinion as to the means by which the disease is distributed. Hilton Fagge states that "It does not spread from one patient to another, or to relatives or nurses of the sick"; on the other hand, Bristowe asserts that "It is infectious in a very high degree, and that it may be imparted by a contagium, which, like other contagia is specific, multiplies indefinitely in the body, and is thence evolved in marvellous abundance." Perhaps the secret of this wide divergence is due to the difficulty in clearly defining several diseases which have much in common.

Fagge says: "The number of those who fall ill with Influenza is greater beyond all comparison than in the case of any other disease, but almost all the mortality is brought about by indirect means. In the great epidemic of 1847, out of 250,000 persons attacked in London, 5,000 died in six weeks. Those who die are chiefly old and debilitated subjects who have laboured with Emphysema of the Lungs or who have feeble and dilated hearts." Dr. Parkes confirms this view, and also states that it precipitates the course of Phthisis. Dr. Farr has pointed out that the mortality is invariably high in those districts in which a high mean death rate prevails. Now, all these points, irrespectively of the well-known symptoms, conclusively indicate the necessity for a highly nutritious and stimulating treatment; likewise the maintenance of the general health during the visit of an epidemic—especially, too, since one attack does not confer immunity, and according to Fagge's theory isolation and other measures for protection against contagion would be powerless. Depletive measures are universally condemned, yet one saline purge in the early stage, followed by ordinary salines and then ammonia with senega, is advocated by Fagge. Quinine and other antipyretics are of course general favourites, but quinine so frequently increases the headache that patients cannot tolerate it.

Parkes particularly condemns the administration of large quantities of hot beef-tea, since it invariably increases the languor, and many do not require stimulants till the acute period passes off, *when a good supply of food is necessary.*

Guided by such experienced remarks, the only question then arises, What food shall be given? Hot beef-tea is condemned—have we anything containing the nutrient necessary for contracting the prostration and hastening convalescence? 'Caffyn's Liquor Carnis, 'Malto-Carnis or 'Carnis Jelly have none of the disadvantages of beef-tea or alcohol, yet they are stimulants as well as nutrients, but they do not excite; they are rapidly assimilated, and so

correct the waste necessarily attendant upon pyrexia. They do not overload the system with a quantity of waste material, so throwing an extra strain upon the overtaxed excretory organs, and "increasing the languor" as complained of by Parkes respecting ordinary beef-tea. Very little food is required during the early stage, but that little must be good. The appetite is invariably lost, therefore these preparations being refreshing and pleasant to the palate will be taken readily when ordinary kinds of food are refused. They will be found equally serviceable in a prophylactic measure by increasing the strength and resisting powers of those who may have been previously reduced in tone by other illnesses, or whose age renders them particularly susceptible to the attack of this disease. Next in importance to the treatment of the disease itself in this, as in other epidemics, is that other troublesome epidemic—panic. This is often more difficult to combat than the actual disease, and practitioners will agree that a large percentage of their cases belong to this category.

The influence of the fixed idea in health and disease plays such an important rôle that it must not be disregarded. In one whose nervous system is highly sensitive and whose frame is not robust, the false symptoms are easily developed, and become of such real proportions that the patient no longer questions their reality, even when the stethoscope and the thermometer fail to corroborate them in the hands of the medical attendant. It therefore becomes a necessity to maintain such patients at such a time in a healthy condition of mind and body, so that the untenableness of the ideas becomes so conclusive, and the imaginary or subjective symptoms are relieved as quickly as those of the patient who, after swallowing [?] his false teeth, localized them successively in his throat and stomach until they were fortunately discovered under the sofa [*Journal of Laryngology*]. To restore or maintain this healthy equilibrium a mild tonic treatment with mineral acids and strychnia—combined with 'Caffyn's Liquor Carnis, 'Malto-Carnis or 'Beef-Tea Jelly, will be found to succeed admirably, and so relieve Influenza of many of its imaginary terrors, for which sensational journalism is in no small measure responsible.

Manufacturers and Patentees, THE LIQUOR CARNIS COMPANY (LIMITED), 50 Holborn Viaduct, London, E.C.

Laboratories—Smithfield Works, London, E.C.

Physicians' Specimen Cases containing Liquor Carnis (Caffyn), Malto-Carnis c. Cocoa (Caffyn), Beef-tea Jelly (Caffyn), and Carnis Suppositories, sent free and carriage paid to Medical Men, Chemists, and Nurses only, by dropping a post-card.

"A nourishing fluid, consisting of the Uncooked Juice of meat or muscle-plasma, permanently preserved by the addition of a definite quantity of a Carbohydrate."—*British Medical Journal*.

'Contains two-thirds (66 %) of LIQUOR CARNIS (CAFFYN), Uncooked Juice of Beef, in combination with Extract of Malt and Cocoa.

'Contains two-thirds (66 %) of Liquor Carnis (Caffyn), and possesses all the Stimulating substances characteristic of ordinary Beef-Extract and Liebig's Extract of Meat, as well as the soluble Albuminoids or Nourishing material present in Raw-Meat-Juice.

DUNCAN, FLOCKHART & CO., EDINBURGH.

CASCARA SAGRADA CAPSULES.

Each Capsule equal to $\frac{1}{2}$, $\frac{1}{4}$, or 1 teaspoonful of Fluid Extract of Cascara Sagrada. They can also be had in combination with $\frac{1}{2}$ or 1 grain of EUCONYMIN, in Boxes at 1/6 and 2/6; 14/- and 24/- per dozen. (Also in Bulk.)

BLAUD'S PILL CAPSULES.

In 3 sizes, equivalent respectively to 1, 2, or 3 Bland's Pills.

These Capsules differ from all others, and have advantages which no others possess. They are made from Pure Unoxidised Carbonate of Iron by a special process. They are so prepared that while they retain indefinitely the full efficacy of fresh Bland's Pills, they have no tendency to become hard and insoluble by keeping, as the pills often do. They are small in size. Owing to the special process adopted by D. F. & Co., the 3-pill Capsule is hardly larger than a single Bland's Pill. They are soft and flexible, and much more easily swallowed than pills.

They can be had in combination with Arsenic, Nux Vomica, &c. in Boxes at 1/-, 1/9, and 2/6; 8/-, 15/-, and 22/- per dozen. (Also in Bulk.)

EASTON'S SYRUP CAPSULES.

Each Capsule equivalent to 20, 30, or 60 minims of Easton's Syrup.

In Boxes at 1/-, 1/9, and 2/6; 10/-, 17/-, and 24/- per dozen. (Also in Bulk.)

SYRUP. HYPOPHOS. COMP. (Duncan's.)

Some time since we had several samples of well-known SYRUP. HYPOPHOS. COMP. analysed by Mr. D. B. DOTT, F.R.S.E., F.I.C., Ph.C., and in no one case did he find so large a proportion of the active constituents as is found in our preparation by a precisely similar analysis—which analysis is an absolute proof that the proportions of the different ingredients which we state are in our Syrup ARE ACTUALLY PRESENT. We, therefore, submit that from the use of our Syrup the best results may be confidently anticipated.

In proof of our statements we subjoin the report of Analysis referred to.

NOTE.—Our Syrup will darken in colour by lengthened keeping; and so must every Syrup which contains a similar proportion of FERROUS Hypophosphite.

"Analysis of SYRUP. HYPOPHOS. COMP. (grains per drachm)."

	Duncan's	No. 1	No. 2	No. 3	No. 4
Hypophosphite of Quinine ..	·25	·14	·11	·69	·12
" " Iron	·77	·72	·10	·28	·15
" " Manganese	·27	·22	·00	·16	·08
" " Calcium....	1·04	·00	·83	·01	·15
" " Potassium..	1·00	·68	1·48	·24	·29
" " Sodium	1·53	1·45	1·64	·29	·29
The quantity of STRYCHNINE present was not determined. Our Syrup contains $\frac{1}{100}$ grain in each fluid drachm.					

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WITHOUT A RIVAL!

From the time Medicine was first discovered by the Ancients down to the present none ever made such progress as

BEECHAM'S PILLS.



They stand without a rival, and have by far the largest sale of any Patent Medicine in the World. This is a fact which every business man is bound to admit.

All Foreign Dealers will find BEECHAM'S PILLS the most Saleable Medicine in the Market.

The health-restoring and life-giving properties of these Pills are such as to increase their demand every year.

The words "BEECHAM'S PILLS, SAINT HELENS," are on the Government Stamp affixed to each box.

Prepared only and sold by the Proprietor, THOMAS BEECHAM, ST. HELENS, LANCASHIRE, ENGLAND, in boxes at 1s. 1½d. and 2s. 9d. each, with full instructions for use.

WYLEYS & CO.

MANUFACTURING CHEMISTS

AND

DRUG GRINDERS.

WAREHOUSES, LABORATORIES, AND DRUG MILLS,
COVENTRY.

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GELATINE COATED OVAL PILLS.

For Stock Sorts, Testimonials, &c.,
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For Private Formulæ write for
Estimates.

COMPRESSED PELLETS.

DISINTEGRATING—SOLUBLE.

We manufacture all varieties, and issue
the same in bulk, or put up in metallic
boxes or screw-capped bottles, with
descriptive labels.

EXTRACT of Malt.

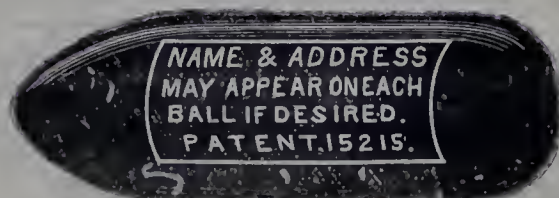
EXTRACT of Malt and Cod Liver Oil.

**EXTRACT of Malt, Cod Liver Oil,
and Hypophosphites.**

In bulk, or in amber bottles in cardboard
cases, 12/- per dozen.

THE DURAPLASTIC COATED HORSE BALL.

(PATENTED.)



"The obvious superiority of these balls over the old paper-wrapped articles will impress the most stolidly conservative of farmers."—*The Chemist and Druggist*.

No. 4.—Alterative Balls	...	...	24/	per gross.
" 5.—Astringent Balls	...	...	24/	"
" 12.—Condition Balls	...	...	24/	"
" 6.—Cordial Balls	...	...	24/	"
" 7.—Cough Balls	...	...	24/	"
" 16.—Cough Balls	...	...	27/	"
" 17.—Cough Balls	...	...	27/	"
" 8.—Diuretic Balls	...	...	24/	"
" 9.—Fever Balls...	...	...	24/	"
" 1.—Physic Balls	...	...	24/	"
" 2.—Physic Balls	...	...	30/	"
" 3.—Physic Balls	...	...	36/	"
" 18.—Physic Balls	...	...	42/	"
" 19.—Physic Balls	...	...	48/	"
" 15.—Stimulating Balls	...	...	24/	"
" 10.—Tonic Balls...	...	...	24/	"
" 11.—Tonic Balls...	...	...	20/	"
" 13.—Worm Balls	...	...	30/	"
" 14.—Worm Balls	...	...	60/	"

PRIVATE FORMULÆ.

WYLEYS & CO. will be glad to prepare Patent Duraplastic
Balls from private recipes.

LOFTHOUSE & SALTMER, MANUFACTURING CHEMISTS, WHOLESALE AND EXPORT DRUG MERCHANTS, HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles. Quotations on Application

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For Medicinal, Photographic, and Commercial purposes.

Importers of Cod Liver, Castor, and Olive Oils; Extra Super Essence of Lemon and Bergamot, Otto de Rose, and all

Special Agents for Sicilian Sublimed Sulphur in 2-cwt. bags, and Rolled Sulphur in 3-cwt.



Essential Oils; Valencia Saffron; Vanillas; Fruit Essence; Carmine; Aniline Dyes; Bees' Wax, &c., &c.

casks. Most Favourable Quotations can be given to large Wholesale Dealers on application.

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Cabinet Varnishes, Polishes, Glaze, Finishing Spirit,
Glues, Wood Stains, Gums, Resins, Shellacs.

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"FOR THE BLOOD IS THE LIFE."

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The Celebrated CURE for
Scrofula, Scurvy, Eczema,
Blood and Skin Diseases,
and Sores of all kinds.

WHOLESALE OF ALL THE WHOLESALE HOUSES.

SOLE PROPRIETORS:

THE LINCOLN & MIDLAND COUNTIES
DRUG COMPANY, LINCOLN.

Counter Bills and Posters, with Name and Address,
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CAUTION.—The Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers, &c., or Advertisements, or in any way infringing their rights.

<p>A Purely Vegetable Digestive Ferment.</p> <h2>PAPAIN</h2> <p>(DR. FINKLER & CO.) Acts in Acid, Alkaline, and Neutral Solution.</p>	<p>A new and most efficient Analgesic in cases of</p> <h2>EXALGINE</h2> <p>(BERGONNET). Facial and Dental Neu- ralgia, Sciatica, Lumbago, &c.</p>	<p>The New Anti- Rheumatic and Antiseptic Remedy</p> <h2>SALOL</h2> <p>(DURAND, HUGUENIN & CO.) For treatment of Rheu- matism, Dysentery, Ulcers, Skin Diseases &c.</p>	<p>All the more important Salts of</p> <h2>QUININE</h2> <p>(MILAN BRAND). Cinchonidine, Cincho- nine, Quinidine, &c., kept in stock.</p>
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Obtainable through the Wholesale Druggists throughout Great Britain and Ireland, and of

B. KÜHN, 36 St. Mary-at-Hill, LONDON,

SOLE WHOLESALE AGENT FOR THE UNITED KINGDOM AND EXPORT.

PAMPHLETS AND PRICES ON APPLICATION.

LLOYD'S A1 COMPRESSED TABLETS

OF PURE DRUGS.

COMPLETELY DISINTEGRATING.

THE rapid growth of our **Pearl-coated Pill** and **Compressed Tablet** Trade since the opening of our premises at the commencement of this year has compelled us not only to double our staff of men, but also to fix a powerful Engine for driving all our Machinery.

We are now, therefore, in a position to compete on equal terms with the oldest established houses, and, having the advantage of all the latest improvements in our Machinery, we can turn out both Pills and Tablets in the most perfect condition.

NET PRICES.

	1 lb.	7 lb.
Chlorate of Potash Tablets	1/3	1/0
Chlorate of Potash and Borax Tablets...	1/3	1/0
Compound Sulphur Tablets	1/9	1/6
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IN TINS FREE.

Special Quotations for Tablets in 6d. and 1s. Boxes or Bottles,

REGISTERED TRADE MARK.

WITH CHEMIST'S NAME ON LABELS IF DESIRED.

T. HOWARD LLOYD & CO.

HIGH STREET and TOWNHALL LANE,
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PRINCIPAL—Mr. T. HOWARD LLOYD, 18 years Partner in the Firm
of JOHN RICHARDSON & CO.



BARRON, HARVEYS & CO.

GILTSPUR STREET, LONDON, E.C.

Beg to inform their friends and the Trade generally that, having purchased the Business of

BARRON, SQUIRE & CO., BUSH LANE,
and also the various Formulæ of the Special Preparations of
JAMES BASS & SONS, HATTON GARDEN,
they are prepared to execute orders for the same, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

NOW BEING LARGELY PRE-
SCRIBED BY THE MEDICAL
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OBTAINABLE DIRECT FROM
CONSIGNEES OR WHOLESALE
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**PEPSINUM
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"LANGEBEK."**

ONE PART OF THIS
PEPSIN DISSOLVES
635 PARTS FIBRIN.

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196 BELSIZE ROAD,
KILBURN, N.W.
And 28 CIRCUS ROAD,
ST. JOHN'S WOOD, N.W.
WRITE FOR PAMPHLET.

LEO & CO.

MANUFACTURERS OF

**COMPRESSED
CHLORATE OF POTASH,**
Chlorate of Potash and Borax,
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They are Supplied by all the Wholesale Houses.

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THE ONLY SAFE RELIABLE PHOSPHORIC CURE
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Dreams, Premature decay of Vital Power, and all Functional
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Universal that in the World of scientific research no other Phosphoric Pre-
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" PAMPHLETS FOR DISTRIBUTION—NO CHARGE.		

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Prepared by the same special process of manipulation as the UNG. EMOLLIENS, but medicated by combination with a new and specially prepared basic and antiseptic Salt of Zinc and other approved remedies.

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Quotations for **S.V.R.** Methylated Spirit and Finish on application.
FINEST ORANGE WINE FOR QUININE.



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[3]

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THE SAFEST and MOST
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Gout,
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Lumbago,
Pains in the Head
Face, and Limbs, &c.

They require neither confinement nor
alteration of diet, and in no case can their
effect be injurious.

Prepared only by **GEORGE EADE**,
72 Goswell Road, London, and sold by
all Chemists, in bottles, 1s. 1½d.; three
in one. 2s. 8d.

An Invitation

Is given to
all Chemists
who stock
Guy's Tonic
to kindly

communicate the fact to the Guy's Tonic Company,
4 Ludgate Circus, London, as a Register of Local
Agents is in course of preparation. This List is being
compiled to enable the Secretary to send accurate replies
to the inquiries constantly being made by direct postal
purchasers from all parts of the country for the names
of Local Agents.

Write to-day. A Post Card will do.

IMPORTANT NOTICE TO THE TRADE

Chemists will find it greatly to their advantage to sell

Fortitur Tonic, bottles 2/9 & 4/6	Hughes & Hughes' Bromo-
Nourmahal Balsamum, 1/6	dyne, 1 1½
" Skin Ointment, 1 1½	Hughes & Hughes' Nerve Tonic
" Bath Sachets, 1/3	Pills, 1 1½
" Chilblain Paste, 1/1½	Hughes & Hughes' Digestive
Nechessor's Embrocation, 1 1½	Antibilious Pills, 1 1½

London Agents, Newbery, Hovenden, Barclay, Sanger, Macos & Haldane, &c.

HUGHES & HUGHES, of 9a London Road & 14 Grenville Place, Brighton, Sussex, undertake to give

£5
In Cash, on every completed **TWENTY-FIVE POUNDS'**
WORTH Purchased of their specialities, from October,
1890, to November, 1891, inclusive.

To gain this £5 bonus it is not necessary that the Goods should be
ordered in large quantities; from one dozen can be sent, either of one kind
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The Receipts for each Order must be carefully kept, and
when they reach £25 send them to **HUGHES & HUGHES**, who will
remit £5 in return.

This Competition gives you no trouble. All you have to do is to place
really good articles before your customers. No finer remedy can be
recommended than **Fortitur Tonic** (see Testimonials and Press Notices),
and all our Specialities are the most desirable for you to stock.

The object of giving this large bonus is to make these Specialities as
widely known as possible.

By competing for this bonus you lose nothing, as no extra charge is
made. Our prices are exactly the same whether you compete or not, and
allow a good profit, so that you may as well save up your receipts and see
how much you gain in the year.

COMMENCE AT ONCE.

If a Chemist sells £100 worth a week, he secures £20 on each hundred;
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Do not wait till the end of the year, but as soon as you have the
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I have carefully looked over the prescription upon which you desire
my opinion. I find it to include valuable ingredients, very wisely amal-
gamated. I consider it a form which any physician would approve of who
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To the Proprietors of "Fortitur Tonic."

SPECIAL**INDIARUBBER
POROUS PLAISTERS.****STRENGTHENING, BELLADONNA,
AND CAPSICUM.**

Manufactured by

WILLIAM MATHER.

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	PACKETS.	PINTS.	QUARTS.
	1d.	2½d.	5d.
MIXED	9/ gross	22/ gross	42/ gross
CANARY	9/ "	22/ "	42/ "
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Carriage paid on quantities equal to one gross pints.

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Recommended
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REAL
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CORK MATS

Warm, Soft, and Dry, Easily Washed, Clean, and Durable.

They Prevent Chills in Bathing, and keep the feet warm and comfortable.
Mr. GLADSTONE pronounces them to be very useful, and Lord SALISBURY
and many of the Nobility and Gentry now use and appreciate them. They prevent
cold feet in Driving, in Church, in the Counting-house, in Stone-floored Apart-
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NON-IRRITANT, NON-ESCHAROTIC, ABSOLUTELY SAFE, AGREEABLE, & CONVENIENT.**

FORMULA.—Listerine is the essential antiseptic constituent of Thyme, Eucalyptus, Baptisia, Gaultheria, and Mentha Arvensis, in combination. Each Fluid Dram also contains two grains of refined and purified Benzo-boracic Acid.

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LISTERINE is a well-proven antiseptic agent—an antizymotic—especially useful in the management of catarrhal conditions of the mucous membrane, adapted to internal use, and to make and maintain surgical cleanliness—asepsis—in the treatment of all parts of the human body, whether by spray, irrigation, atomization, or simple local application, and therefore characterised by its particular adaptability to the field of

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LISTERINE destroys promptly all odours emanating from diseased gums and teeth, and will be found of great value when taken internally in teaspoonful doses, to control the fermentative eructations of dyspepsia, and to disinfect the Mouth, Throat, and Stomach. It is a

PERFECT TOOTH AND MOUTH WASH,

Its value in this direction having been fully determined by the most conservative element of the Dental Profession.

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FRANK WOOD

(From W. WOOD & SON, MANCHESTER),

42 BELVOIR STREET, LEICESTER.

	Per doz.		Each
TRUSSES (Single), Basil & Moleskin	11/6	ELASTIC STOCKINGS (Cotton)	... 2/2
„ (Double), „ „ „	18/6	„ „ (Silk)	... 3/4

ENEMAS (complete in Box), 26/- per dozen.

TERMS—5 per cent. discount Cash; 2½ per cent. discount Monthly.



Fig. 1.

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Fig. 2.

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REDUCED PRICE LIST NOW READY.

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MAKERS OF THE NEW COLONIAL TRUSS, PROTECTED UNDER THE PATENT ACT.

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**BARCLAY'S NEW CHECK
SPONGE WRAP**

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Size—18 inch × 18 inch; each 1/8

„ 24 inch × 24 inch; each 2/-

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Established upwards of a Century.

**COOK'S ANTISEPTIC SOAP**

(THOMSON'S PATENT),

*Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with.
(See "Journal of Chemical Industry, 1888, No. 3.) Of great value in CASES OF*

**ECZEMA, RINGWORM, SCABIES, FAVUS
AND OTHER SKIN DISEASES.**

See "The Lancet," 12 May, 1888, page 936.

Price in 3-Tablet Boxes, per doz. **12/-**; Selling Price, **1/6**; in $\frac{1}{4}$ -gross Boxes, **10/6** per box.

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TURNED METAL FLASK & BOTTLE CAPS

For Spirits, Oils, Perfumes,
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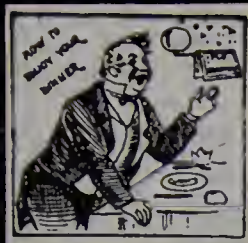
3-lb. Boxes, per dozen, 5/4; 7-lb. Boxes, 10/9; 14-lb. Boxes, 19/9; 28-lb. Boxes, 35/10; Cardboard Packets, each sufficient for a bath, in Boxes of 12 Packets, 12/3 per dozen Boxes; White Linen Bags, each sufficient for a Bath, 3 dozen in a Box, 8/3 per gross.

SPONGES, SURGICAL APPLIANCES, PERFUMERY, COSMETICS, &c., &c.

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- "STIPENDUM" CORK STOPPERS, in all sizes.
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"STIPENDUM" GREASE-PROOF COVERED POTS

IN TERRA COTTA, CHOCOLATE, AND BLACK.

The Grease-Proof Covered Pots have perfectly fitting lids, are practically unbreakable, and the only article really answering the purpose intended.

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"We have examined the two covered pots marked November 21, 1890, one containing strong nitrate of mercury ointment, and the other iodine ointment, the object being to discover—(1) Whether the ingredients of which the pots are composed have in any way affected the ointments; (2) Whether the pots have been deteriorated by the action of the ointments.



We hereby certify that no trace of any of the ingredients of the pot can be discovered in either of the ointments, and further that the pots themselves were found not to have been acted on at all; and we further consider 'Stipendum' admirably adapted for such pharmaceutical preparations.

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To be had of all Druggists' Sundriesmen.

Wholesale only of the Company.



R. H. BARRETT,

Flint Glass Bottle Works,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

THE HEART SCENT BOTTLE (Reg.), for Salts or Perfume.

Is most admirably adapted for pocket use, combining great beauty of design with the maximum of convenience.

Price, Plain or Fluted (in 5 GROSS lots) :—12/6 per gross. Assorted WHITE and COLOURED. N.B.—The Caps for these will be fitted, if desired, with indestructible washers, to resist the action of ammonia, which destroys cork in a short time.

METAL SCREW-CAPPED LIMES, in White Flint, Actinic Green, or Amber The Best Bottle for Glycerine or Pills. Prices : 1 oz. 13/6, 2 oz. 15/6, 3 oz. 18/6, &c. per gross

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[3]

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CASTLE STREETS
FULL PARTICULARS ON APPLICATION. E.C.

CONSUMPTION

POSITIVELY CURED BY WILLIAM RADAM'S

MICROBE KILLER.

This Medicine Cures Disease by Removing the Cause,

MICROBES,

AND IS NOT INJURIOUS TO THE SYSTEM.

Pamphlets and Testimonials gratis to any address.

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One of the oldest Eye Ointments in the market. Secured and held a splendid sale without advertising. The present proprietor, W. H. Richardson, F.C.S., Chemist, Dudley, desires to advise Chemists that Squire Knight's Eye Ointment is being extensively advertised. As an increased and extending trade is sure to result Chemists would do well to stock it. At all Wholesale Houses. Correspondence to the Head Depot at Dudley will always receive prompt attention.

STOKES' PATENT CHECK TILL SYSTEM.

A SOUND INVESTMENT.



Each Till has only to display 2d. per week deficiency to return 15 per cent. on outlay.

30,000

Sales Checked for

3 SHILLINGS.

Terms and full particulars on application.

G. R. STOKES & CO., Limited, Hanley, STAFF.

DISPENSING BOTTLES & PHIALS.

REDUCED PRICES.

3 and 4	6 and 8	12	16 ounce.
7/6	8/6	12/-	16/- per gross.

CRYSTAL (BLUE TINTED).

3 and 4	6 and 8	12	16 ounce.
9	10/-	14/-	18/- per gross.

WHITE PHIALS.

3/8	1	1 1/2	2 ounce.
4/3	4/-	4/9	5/6 per gross.

WHITE PHIALS (SUPERIOR QUALITY).

1/2	1	1 1/2	2 ounce.
4/3	5/3	5/9	6/3 per gross.

I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS

25 FRANCIS STREET, Tottenham Court Road, LONDON.

BANKERS: LONDON AND WESTMINSTER BANK.

ESTABLISHED UPWARDS OF 50 YEARS

TOBACCO AND CIGARS—MIXED PARCELS.

Every Requisite for the Smoker in One Order.

The following Manufacturers' Packet Tobaccos supplied at their List Prices, CARRIAGE PAID:—Wills, Cope, Hignett, Gallaher, Taddy, Ogden, Phillips, Player, Murray, Archer, Clarke, Brankston, Morris, Mitchell, Smith, Lambert & Butler, Pace, Goodwin, Duke, Kinney, Kimball, Richmond Cavendish Company, Carroll, Lorillard, &c. Havana, Mexican, Manila, Indian, and Swiss Cigars and Cheroots at Importers' Prices.

The Cigarettes of the following Firms at List Prices:—Goodwin, Allen & Ginter, Kinney, Duke, Kimball, Au Bon Fumeur, Wills, Player, Lambert & Butler, Cope, and the leading Egyptian and Turkish Houses.

BRITISH CIGARS from 4s. to 20s. per 100. All carefully selected and well matured. The largest and most varied stock in the United Kingdom to select from.

Irish Roll, Pigtail, Nailrod, Target, Cake, Plug, and all other hard Tobaccos; also Flakes, Shags, Virginias, Cut Cavendish, and every description of plain and fancy Cut Tobaccos of standard quality at lowest prices.

Tobacconists' Fancy Goods and Smokers' Sundries of every description at current rates.

Carriage paid on parcels from £2 upwards to any station in the United Kingdom. SEND FOR DETAILED PRICE LISTS.

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Cannon Street and Fore Street, BIRMINGHAM.

No. 1855.
1891. — ALL PRIOR PRICE LISTS WITHDRAWN, 1891.

WHOLESALE TRADE PRICE LIST

BREFFIT'S CAPPED OIL AND ETHER ROUNDS,

Hand-made, White Glass.

	20 oz.	30 oz.	40 oz.
ACID or ETHER ROUNDS, STOPPERED and GLASS CAPPED.	23/-	27/6	34/6
OIL BOTTLES, STOPPERED FUNNEL STOPPERS and GLASS CAPPED.	23/-	27/6	34/6
OIL BOTTLES, STOPPERED FUNNEL STOPPERS, and with TIN CAPS.	23/-	27/6	34/6
	20 oz.	30 oz.	40 oz.

DARK BLUE SYRUP BOTTLES,

Hand-made, with loose Plug Stoppers.

20 oz., 8/6

30 oz., 10/6

40 oz., 14/- per dozen.

HAND-MADE WHITE GLASS SHOP ROUNDS

SIZES	2dr.	$\frac{1}{2}$	1	1 $\frac{1}{2}$	2	3	4	6	8	10	12	16	20	24	30	32	40	60	80 oz.
UNSTOPPERED, NARROW or WIDE.	7d.	7d.	9d.	9d.	11d.	1/3	1/4	1/8	2/	2/3	2/6	2/9	3/3	3/6	4/	4/	5/	6/3	8/6
NARROW, GROUND GLASS STOPPERED.	1/3	1/5	1/6	1/9	1/9	2/	2/3	2/8	3/6	3/9	4/	4/6	5/3	5/6	5/9	5/9	6/9	8/	10/6
WIDE, GROUND GLASS STOPPERED.	1/6	1/8	1/10	2/	2/	2/3	2/8	3/3	4/	4/3	4/6	5/3	5/9	6/	6/3	6/3	7/3	9/	11/6

Prices per dozen, Net Cash, Delivered Free, London.

GOLD LABELLING on above, 3/ per dozen. ENGRAVED LABELS on above, 4/6 per dozen.

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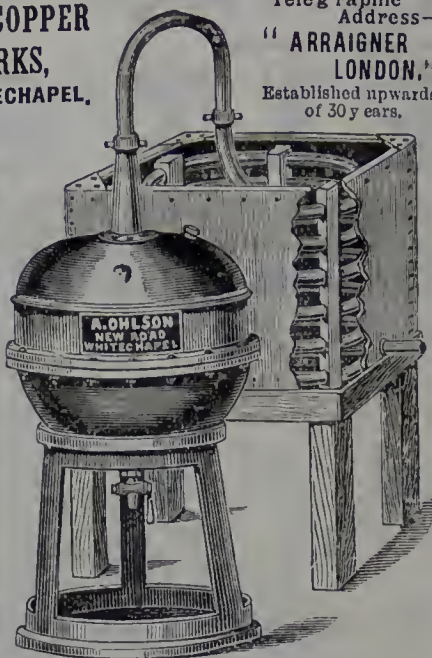
ANDREW OHLSON,

Pharmaceutical Coppersmith & Engineer.
Telegraphic Address—
"ARRAIGNER LONDON."
Established upwards of 30 years.

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& IRON WORKS,**
85 New Road, WHITECHAPEL.



COPPER PERCOLATOR WITH
HYDRO COVER.

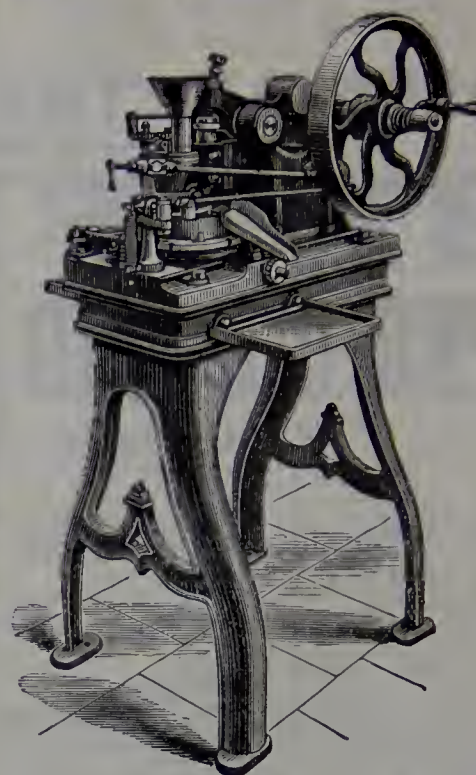


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PORTABLE DOME.

STILLS,
NICRE, AMMONIA,
CLOVES, ALMONDS,
ACETIC, MINT,
LAVENDER,
APPARATUS FOR
DISTILLED WATER,
LABORATORIES FITTED UP COMPLETE.

STEAM JACKET PANS,
EVAPORATING,
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MISCELLANEOUS,
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TINCTURE PRESSES,
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COIL.



Sole Licensees for Manufacture and Sale of McFerran's Improved
Automatic Machinery for Making

COMPRESSED TABLETS

Of various shapes and sizes, from 1/4 gr. upwards.

Experts sent to fix and start Machines. Write for particulars and prices.

CAPSULES FOR MOULD MAKING. Machines Manufactured to Contract for Inventors & Merchants.

JOHN HOLROYD & CO., LTD.

Engineers, Tool Makers, and Machinists,

TOMLINSON STREET WORKS,

HULME, MANCHESTER.

THE "UNIVERSAL"

KNEADING AND MIXING MACHINE

Pill Cutting, Pill Rounding, Pipers, and all other Machines for

PILL MASS MAKING,

Also for Horse Balls, Tooth Pastes, Ointments, Soaps. Powders, and
for general Mixing, Incorporating, Sifting, and Straining.

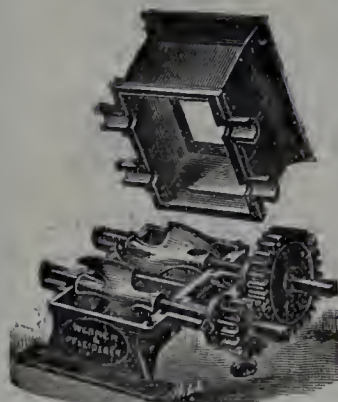
REPLACES WITH ADVANTAGE ALL OTHER APPLIANCES FOR THESE PURPOSES.

Made in various sizes, to do from 1/4 lb. up to 1 ton at a time.

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Blackfriars Bridge,

Contractors to the War Offices of all the Great Powers and other Governments.



Size 3, Type I, for 1-lb. Mass.

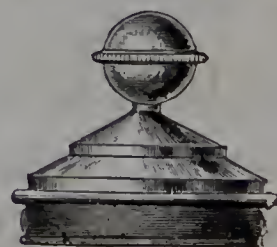
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AIR-TIGHT CHEMIST JAR.

A slight turn of the knob presses the indiarubber Band against the
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made of pure Nickel, of handsome shape.

INVALUABLE FOR SHOW BOTTLES, CHEMISTS, CONFECTIONERS, &c.

Samples and Prices of all Chemists' Sundriesmen.



Section of the Nickel
Stopper when closed.

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37 CRUTCHED FRIARS, MARK LANE, E.C.

[2]

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WAREHOUSE AND SHOW ROOM,

BURLINGTON BUILDINGS,

HEDDON STREET, REGENT STREET, LONDON, W.

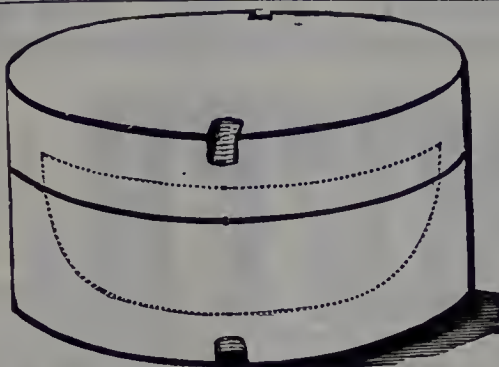
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IMPROVED PATENT

EARTHENWARE

COVERED POTS

Are claimed to be the most
perfect and convenient yet offered to
the Trade.



*Owing to the increasing demand
for our Patent Pots, we have in-
troduced a Special THIN Series
for Dispensing.*

*These Pots are beautifully
glazed and finished, and, being
very light, are specially adapted
for sending by post.*

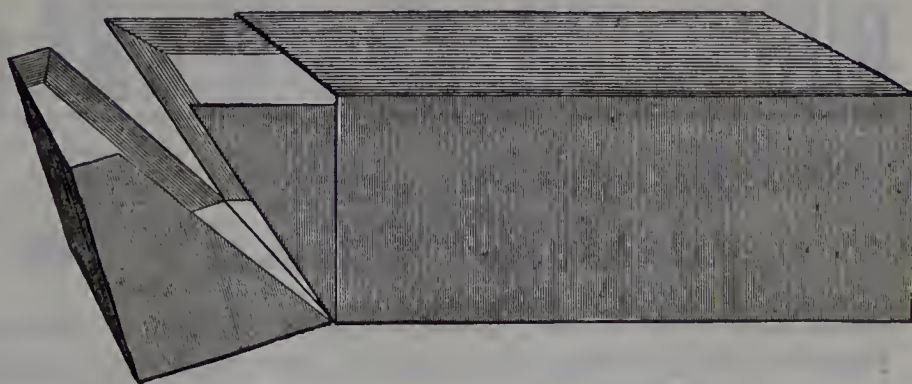
ORDINARY THICKNESS—									
1 dr.	2 dr.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	8 ounces.
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{1}$	$\frac{2}{3}$	$\frac{2}{10}$	$\frac{3}{8}$	$\frac{4}{6}$ 5/6 per doz.
THIN FOR DISPENSING—									
$\frac{1}{2}$	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	3	4	6	8 ounces.	
$\frac{1}{7}$	$\frac{1}{9}$	$\frac{2}{1}$	$\frac{2}{2}$	$\frac{2}{5}$	$\frac{3}{1}$	$\frac{4}{1}$	$\frac{5}{1}$	$\frac{6}{1}$ per doz.	

TOOGOOD'S NEW REGISTERED SLIDE BOXES FOR POWDERS, &c.

REGISTERED No. 154,622.

PRICES.

	For 6	12	18	24 Powders
White Enamel				
	6/9	7/9	8/9	9/9 gross
Purple ...	7/9	8/9	9/9	10/9 „



TOOGOOD'S AIR-TIGHT AND GREASE-PROOF PAPER

FOR PACKING LINSEED MEAL, JUJUBES, &c. Demy size, 6/6 ream.

TOOGOOD'S PATENT BRONCHITIS AIR KETTLE,

51/- per dozen.

SOLE AGENT FOR DR. LEE'S STEAM DRAFT INHALERS.

S.V.R., B.P.

We wish to draw the attention of Chemists to the excellence of the spirit we supply for pharmaceutical purposes. We have devoted great care and attention to this branch and have made it a leading line.

That our efforts in this direction have been appreciated is proved by the number of unsolicited testimonials we have received from nearly every town in the country, of which the following is a specimen:—

GENTLEMEN,—

Please send 5 gall. 56 o.p. as before. I have pleasure in saying I have always found your spirit answer all tests, which is more than I can say of all I have had from different places, and also to be practically free from odour.

Messrs. Stephen Smith & Co.

The Pharmacy, Morecambe.

Yours faithfully, JOSH. N. CUTTS, B.Sc., F.O.S.

In consequence of the increase in the spirit duty our prices will be—

S.V.R. 56 o.p. ... 19s. 7d.

CASH WITH ORDER

Double Distilled, 56 o.p. ... 19s. 11d.

REDUCTIONS FOR QUANTITIES.

SPECIALITY FOR PERFUMERY.

This pure grain spirit, which has been thrice rectified and filtered through charcoal, is being largely used in making high-class Perfumes.

Price, 20/2, 56 o.p.; 20/8, 60 o.p. Cash with Order. Reductions for Quantities.

STEPHEN SMITH & CO., BOW, LONDON, E.

S. V. METH.**JONES & COMPANY,**

COPPERFIELD ROAD

LONDON, E.

LARGEST MAKERS IN THE KINGDOM.

We are prepared to supply METHYLATED SPIRIT in
5-gallon quantities at Lowest Prices.

REDUCTIONS TO LARGE BUYERS.

SAMPLES FREE.

JAMES BURROUGH, S.V.R.65
o.p.60
o.p.

CALE ST., CHELSEA, S.W.

and Methylated Spirit

AT LOWEST PRICES.

WRITE FOR QUOTATIONS.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.**JOHN OAKEY & SONS,**

MANUFACTURERS OF

Glass and Flint Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels
Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish
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Prepared expressly for Oakey's and other Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines,
Sold in Canisters with perforated Tops to prevent waste, at 1d., 2d., 3d., 6d., 1s., 2s. 6d., and 4s. each.

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For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKEY'S "POLYBRILLIANT" (REGISTERED).

A Magic Pomade for Cleaning Brass, Copper, Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Paste
Tins 1d., 2d., 3d., and 6d. each.

WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.
Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1884.

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For destroying Weeds, Moss, &c., on Garden Walks, Carriage Drives, Roads, &c.

We desire to point out the special advantages which the sale of our "Acme" Weed Killer affords the Trade

1. The "Acme" Weed Killer is used in the gardens and on the estates of the Gentry in nearly every town in the Kingdom.
2. Our Retail Prices are such as will induce a ready sale, and we make no charge for 1 and 2 gallon tins.
3. We pay carriage on six 1-gallon tins, or on four 2 gallon tins, and on 10 gallons in drums and upwards.
4. Drums are charged at cost price. Full price allowed when returned.
5. By taking a 40-gallon cask, and retailing it in small quantities, the Retailer makes upwards of 140 per cent. profit.

Trade Terms on application.

RETAIL PRICES.—In 1 and 2 gallon tins, 2/- per gallon (tins included); in 5-gallon drums, 1/6 per gallon; 10, 15, and 20 gallons, 1/4 per gallon; in 40-gallon casks, 1/2½ per gallon.

TESTIMONIALS received from Mr. HEAD, Crystal Palace; Mr. IRWIN LYNCH, Cambridge Botanic Gardens; and others.

THE "ACME" WEED KILLER, FOR CHEAPNESS & EFFICIENCY, HAS WON FOR ITSELF A NAME THROUGHOUT THE KINGDOM FAR ABOVE ALL OTHERS.

SOLE PROPRIETORS AND MANUFACTURERS—

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CARBOLIC POWDER

SPECIAL QUOTATIONS FOR 1-TON LOTS AND UPWARDS.

CARBOLIC PINK POWDER, 5/-, 7/6, and 10/- per cwt., in bags or casks.

HANDSOME LARGE DECORATED BLACK AND GOLD TIN BOXES, holding 1½ lb. (usual 1/- size), 4/6 dozen.
Ditto, LARGE SIZE (usual 1/6 size), holding about double quantity, 8/- dozen.

PALE CARBOLIC ACID, 99 per cent. (No. 5), and CHLORIDE OF LIME below market prices.
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SANITARY FLUID or CREOSOL (to be used with 100 parts of water, making a milky fluid), half usual prices.

All goods delivered free in London or suburbs, or to rail or docks.

THE CHEAPEST HOUSE IN THE TRADE.

HAMILTON & CO., LIM., WANDSWORTH, LONDON, S.W.

PETROLEUM JELLY,

PARAFFINUM MOLLE B.P.

(PIONEER BRAND) Registered Trade Mark.

Equal to and Cheaper than VASELINE.

FOR MEDICAL AND PHARMACEUTICAL PURPOSES.

White, Yellow, Veterinary, and Waterproof. All kinds put up in 1-lb., 5-lb., 7-lb., 14-lb., 28-lb., and 56-lb. Patent Tins, and in 300-lb. Barrels.

Pure Castor Oil, Cod Liver Oil, White Mineral Oil, Best Eating Olive Oil, Pale and Crude Carbollic Acid, Carbollic Powders, Sheep Dip, Benzine 50 per cent. and 90 per cent., Crude and Rectified Spirits of Tar, Stockholm Tar, Camphor Ice, Carbon Candles.

PATENT

CARBOLIZED PEAT,

THE NEW AND POPULAR DISINFECTING POWDER.

SEND FOR SAMPLES AND PRICES TO

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(ESTABLISHED 1868.)

ESTABLISHED 1833.
HORSES.—LIEUT. JAMES'S BLISTER.



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The annexed Label is at the top of every Pot of the *ORIGINAL* and only *GENUINE BLISTER*.

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And by all Chemists, in Pots, 1/8, 2/9, 5/, 9/, and 16/.

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In Powder, Paste, and Liquid.
Non - poisonous, Poisonous, and Combined.

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WANTED, CHEMISTS AND DRUGGISTS AS AGENTS.



Apply—

QUIBELL BROTHERS,

Manufacturing Agricultural Chemists,
NEWARK-ON-TRENT.

G. B. KENT & SONS

Have been awarded the **ONLY**



A.D. 1777.

GOLD MEDAL



At the Paris Exhibition, 1889, for

ENGLISH BRUSHES

See pages 169-172 WINTER ISSUE, January 31st, 1891.

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POISONOUS POWDER DIP

(Warranted to remain dry, and not discolour Packages)

WEED DESTROYER.

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WILEY'S CHEMICAL ESSENCE
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50 YEARS' UNBROKEN SUCCESS.

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TO BE HAD OF USUAL WHOLESALE HOUSES.

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Also a perpetual injunction, with costs, has been granted against a firm of English traders by Mr. Justice Kekewich, in the Chancery Division of the High Court of Justice, restraining the use of tins of Carbolic Acid Disinfecting Powder, infringing F. C. CALVERT & CO.'S rights.

NOTICE is hereby given that immediate proceedings will be instituted on behalf of F. C. CALVERT & CO. against any person or persons issuing colourable imitations of their packages or trade marks.

McKENNA & CO.,

17 Basinghall Street, London, E.C., Solicitors to

F. C. CALVERT & CO.



LONDON, 1884.

CARBOLIC DISINFECTANTS



LONDON, 1884.

BEFORE ORDERING ELSEWHERE write for detailed Price Lists and Samples of

POWDERS, ACIDS, FLUIDS, SOAPS, &c.

TO

ADAMS, WEBSTER & CO.

Wholesale & Export Disinfectant Manufacturers, HACKNEY, LONDON, N.E.

WALKER, TROKE & CO.

WHOLESALE DRUGGISTS,

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MANUFACTURERS, SANDY, BEDSSole Proprietors of Sanford's Celebrated **RAT POISON**, without doubt the best ever introduced. Price, 6d., 1s., 2s., and 3s. per box. Also **MICE POISON**; cannot be excelled. In packets, 3d., 6d., and 1s. each. Liberal terms to Chemists.Wholesale of **BARCLAY & SON, SANGER & SON, NEWBERRY & SON, EDWARDS & SON**, and others, London.**HYDE, NASH & CO.****16 Philpot Lane, LONDON, E.C.**

SPECIALITIES—

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Wholesale and Export Druggists before buying elsewhere should apply to

FREDK. FINK & CO.**10 & 11 MINCING LANE, LONDON, E.C.****BARTON'S EXTERMINATOR.**

ONE SHILLING PER BOX.



Kills and Completely Dries up Rats or Mice. Does Not Harm Dogs or Cats. No Smell from the Dead Ones.

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THROUGH ALL THE WHOLESALE HOUSES.**LEARNER'S****PATENT FOOT-ROT COMPOSITION.****A CERTAIN CURE.**

£1,000 was bond-fidely offered for this Patent in December, 1890. This proves the value of Learner's Foot-rot Composition above all others.

Retailed in two sizes, 1s. 6d. and 3s. Price to the Trade, 19s. and 26s. per doz. May be obtained of the Proprietor or of most London Houses.

KOLA WINE.**VAN HARGAN'S.**The Original Introducer of **KOLA WINE**. An excellent Tonic, and assists Digestion.**MESSRS. NEWBERRY, 1 & 3 King Edward St., London, and all Trade Houses.****GREENSILL'S**
ORIGINAL**MONA BOUQUET.**

Wholesale and Shipping Terms sent on application to the Sole Manufacturers—

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PRECIPITATED CHALK, WHITEST AND PUREST.CHEAPEST SELLERS IN THE MARKET.
ALSO **CHEMICALS, DRUGS AND OILS.**APPLY TO
AUG. LEVERMORE & CO.,
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FINEST PALE LIVER

BARBADOES ALOES.

ALOE

Buyers are invited to apply for prices to

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LEADENHALL HOUSE, LEADENHALL STREET, E.C.

The Largest Holder in England.

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ALOE

EMP. GERAT. SAPONIS.

ON FINE SHIRTING, 16 IN. WIDE.

6s. per Dozen net cash.**JOHN QUILLIAM & CO.,** Plaster Works, Manchester.
Oowburn Street, (1)**MANICURE**

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The genuine articles as originally introduced and prepared by
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